Offentlig innkalling

Styret ved Norges Handelshøyskole

Dato: 20.04.2022 10:00

Sted: C314 - NHH

Saksliste

Vedtakssaker

Orienteringssaker

GODKJENNING AV PROTOKOLL FRA MØTE 2/22, INNKALLING OG SAKSLISTE MØTE 3/22

Saksbehandler Randi Holmås
Arkivreferanse 21/03483-10

Utvalg	Møtedato	Utvalgsnr
Styret ved Norges Handelshøyskole	20.04.2022	18/22

Forslag til vedtak:

Protokoll fra møte 2/22 godkjennes. Innkalling og saksliste til møte 3/22 godkjennes.

Bakgrunn:

Vedlagt protokoll fra møte 2/22 til endelig godkjenning.

Vedlegg: Protokoll fra møte 2/22 – U.off. jf. offl. §5

Sak 18/22 Vedlegg

Dokument unntatt offentlighet.

Tittel: Protokoll fra møte 2/22
Tilgangskode: Unntatt offentlighet
Paragraf: Offl. § 5

REKTOR ORIENTERER OM STATUS OG FREMDRIFT - MØTE 3/22

Saksbehandler Randi Holmås
Arkivreferanse 21/03484-10

Utvalg	Møtedato	Utvalgsnr
Styret ved Norges Handelshøyskole	20.04.2022	19/22

Forslag til vedtak:

Styret tar redegjørelsen til orientering.

PROGRAMEVALUERING EMBA-PORTEFØLJEN

Saksbehandler Gro Tufte
Arkivreferanse 22/01472-1

Utvalg	Møtedato	Utvalgsnr
Styret ved Norges Handelshøyskole	20.04.2022	20/22

Forslag til vedtak:
Styret tar Programevalueringen for EMBA spesialiseringene til orientering.

Bakgrunn:
Alle studietilbud som tilbys ved NHH gjennomgår periodiske evalueringer. Gradsgivende studieprogram evalueres hvert femte år i en programevaluering. Programevalueringen følger NHHs «Retningslinjer periodiske evalueringer (programevalueringer)», vedtatt 31. januar 2018.

Denne programevalueringen omhandler følgende EMBA spesialiseringer:

- MBA i økonomisk styring og ledelse (MØST)
- MBA in Technology and Innovation of Finance (FINTECH)
- MBA i Strategisk ledelse (MASTRA)
- MBA in Seafood Management (SEAFOOD)

Arbeidet med programevalueringen startet våren 2020 og er gjennomført i perioden 2020 og 2021. Det betyr at evalueringsrapporten er utformet i en tid der covid-19 og AMBA akkrediteringen både har påvirket og forsinket arbeidet.

Direktør NHH Executive (direktør NHHE) har ansvar for gjennomføring og oppfølging av evalueringene ved NHH Executive (NHHE). Programevalueringen skal munne ut i en rapport som sendes NHH-styret til orientering.

Vedlegg: Programevaluering for EMBA spesialiseringene (u.off. jf. offl. § 13, jf. fvl. § 13.1 pkt. 2).

Sak 20/22 Vedlegg

Dokument unntatt offentlighet.

Tittel: Programevaluering EMBA-spesialiseringene.
Tilgangskode: Unntatt offentlighet
Paragraf: Offl. § 13, jf. fvl. § 13.1 pkt. 2

PROGRAMEVALUERING MØA

Saksbehandler Stig Tenold
Arkivreferanse 22/01488-1

Utvalg	Møtedato	Utvalgsnr
Styret ved Norges Handelshøyskole	20.04.2022	21/22

Forslag til vedtak:
Styret tar saken til orientering

Bakgrunn:
Programevaluering utarbeides for alle gradsgivende studieprogram ved NHH minst hvert femte år. Dette er en del av det systematiske kvalitetsarbeidet ved høyskolen, og har sitt opphav i nasjonale krav til periodisk kontroll av studieprogrammene gjennom Studiekvalitetsforskriften § 2-1 (2). Forrige komplette programevaluering av masterprogrammet i økonomi og administrasjon ble gjennomført i 2015.

Programevalueringene skal dekke alle vesentlige forhold av betydning for utdanningskvaliteten. Ved NHH styres programevalueringer av dokumentet «Retningslinjer periodiske evalueringer (programevalueringer)». Arbeidet med denne programevalueringen har vært lagt opp noe annerledes enn tidligere evalueringer, spesielt på to punkter:

I 2018 nedsatte daværende prorektor for utdanning det såkalte «MØA-utvalget», som fikk i oppdrag å vurdere strukturen i MØA og anbefale endringer, med særlig vekt på akademisk progresjon. Utvalget kom i mars 2019 med en rekke anbefalinger som er fulgt opp i tiden etterpå. MØA-utvalgets arbeid regnes som en del av denne programevalueringen.

Tradisjonelt har representanter fra næringslivet, studenter og eksterne bidragsytere deltatt i arbeidet med evalueringen gjennom intervjuer, surveydeltakelse eller skriftlig høring av rapporten. I denne programevalueringen la man i stedet opp til et dialogmøte mellom programledelsen, studenter, alumni, næringsliv, ekstern fagfelle og ansatte i seksjon for utdanningskvalitet, hvor man diskuterte ulike spørsmål identifisert i den skriftlige rapporten. Erfaringene med denne typen programevaluering tas med i det pågående arbeidet med å revidere systemet for systematisk kvalitetsarbeid ved NHH.

Med bakgrunn i evalueringen vil det utarbeides en handlingsplan, som skal vedtas av prorektor for utdanning. Handlingsplanen vil også hensynta ny strategi og andre relevante føringer for arbeidet med videreutvikling av masterprogrammet i økonomi og administrasjon. Ansvaret for å utvikle handlingsplanen ligger hos programleder.

Vedlegg:
Programme Evaluation MSc in Economics and Business Administration

Sak 21/22 Vedlegg

Programme Evaluation

MASTER OF SCIENCE IN ECONOMICS AND BUSINESS ADMINISTRATION

NHH

Report from the Programme Manager (2017-2021)
March 2022

TABLE OF CONTENT

1. INTRODUCTION

1.1 About the report

The report presents the programme evaluation of the Master of Science in Economics and Business Administration (MScEBA) programme, in accordance with NHH's guidelines for periodic programme evaluations. Chapter 1 describes the strategic background and the formal requirements for the evaluation, as well as the results from previous evaluations. Chapter 2 presents the current content and structure of the programme, and chapters 3-5 discuss the performance of the programme with respect to NHH’s strategic goals (see the next section). Finally, Chapter 6 summarizes the viewpoints of the evaluation panel with respect to the discussion questions raised in chapters 2-5.

1.2 Strategic goals

The current strategy[1] specifies that “NHH shall educate excellent economists and managers with sound analytical skills, a good understanding of technology and a strong commitment to society”. The main objectives for the education activity are:

1. Admission quality: NHH shall attract students with strong academic results and a high motivation for learning. NHH’s study programmes shall be a clear first choice in the fields of economics and business administration among Norwegian students and attract highly qualified international students.
2. Quality of studies: NHH shall have a culture for quality in its education, where the administration, academic staff and students continuously strive to improve the quality of studies. Our teaching, study programmes and learning environment shall be on par with the best international business schools.
3. Graduate quality: NHH graduates shall be preferred in the national market for economists and managers, attractive in the international labour market and qualified for the best international master’s degree and PhD programmes.

An important implication of the admission quality objective is that our MScEBA programme should continue to be an attractive alternative in an educational market that is becoming increasingly international and competitive. To produce graduates of high quality, we also need to focus on academic coherence and progression in the programme. Benchmarking of our MScEBA programme against other institutions[2] shows that NHH has a relatively high degree of flexibility and a relatively low share of common/mandatory content. The MScEBA-courses are loosely organised into flexible majors with few, if any, mandatory course requirements. This flexibility of the majors makes it possible for the students to choose only “basic” level courses, avoiding any academic progression. This flexibility is to some extent appreciated by students and staff, but the broad selection of majors and courses also makes it harder to separate some of the profiles from each other. It also presents some challenges regarding how to ensure specific learning outcomes within majors, as well as sufficient academic progression. The benchmarking in the programme evaluation from 2015 suggests that it is possible to maintain its differentiation on flexibility and still introduce a modest increase in mandatory content if it is found desirable to address issues like ensuring academic progression or certain common

[1] https://www.nhh.no/en/about-nhh/strategy/
[2] Programme evaluation of the Master of Science in Economics and Business Administration, 2015

skills. Since 2015, some changes have been made to tighten the structure, following the work of the MØA committee in 2018-2019. These changes will be described in Chapter 2.

The strategy also specifies strategic priority areas, and the following areas will be particularly relevant for the MScEBA programme:

- Renewal and relevance
    - NHH shall systematically review its programmes and courses to ensure that they are relevant.
    - NHH shall develop new technology-related courses.
    - NHH shall offer students more experiences that are practical as part of their education.
- Outstanding learning environment and educational method
    - All students shall feel safe and included at NHH.
    - All of NHH's study programmes shall have at least 40% students of each gender.
    - NHH shall offer educational methods that create engagement and facilitate learning, such as by increasing the number of courses that use student-centred teaching methods. As a result, NHH shall achieve a higher score on the Student Survey (Studiebarometeret) on questions concerning students' own engagement and expectations to come prepared to lectures.
    - NHH shall systematically review the use of assessment forms in its courses to maximise learning.

1.3 Programme evaluation guidelines

The NHH Quality Assurance System[3] states that all programmes should be evaluated at least every sixth year. The evaluations should assess the quality of the following areas in an integral manner:

- Admission
- Quality of courses/modules
- Course portfolio/programme content
- Work and learning environment
- Production/achieved results
- The educational programme's relevance

The previous evaluation of the Master of Science in Economics and Business Administration (MScEBA) was conducted in 2014/2015.

1.4 Previous evaluations

1.4.1 Programme evalution in 2015

The Programme evaluation of the Master of Science in Economics and Business Administration was conducted during autumn 2014 and spring 2015. A tentative report was subject to a formal hearing process in February and March of 2015. The main issues raised in the report were:

[3] https://www.nhh.no/om-nhh/organisasjon/nhhs-kvalitetssystem/

- *How to attract a greater number of high-quality international degree students, e.g., by opening for combining existing courses into new, focused (high mandatory content) international majors, such as "Finance and strategy" or "Finance and accounting" by admitting non-business bachelors?*
- *How to ensure that all non-"siviløkonom"/international degree students (across majors) share a minimum set of business administrative knowledge upon graduation, e.g., through admission requirements or through mandatory courses in the master programme?*
- *Whether non-"siviløkonom"/international degree students should continue within MScEBA , or receive a separate degree (e.g. a Master in Management)*
- *How should we best achieve academic progression within each major for all students, for instance through mandatory courses that build on each other, or through electives that build on introductory courses, i.e., require students to take at least one advanced course?*
- *How to improve teaching methods used to further the skills development of students, considering resource demanding challenges, higher student numbers and plans for transfer of resources to the bachelor?*

Issues related to internationalization of the programme were prominent in the report and the hearing. As a result of the evaluation, the criteria deciding which admission cycle (national or international) a student is included in was changed, from 2016, from the student's nationality to his or her academic background and merits. Also, the timing of the international and national admission processes to MScEBA was harmonized from 2016, with a common application deadline in February. A follow-up report in 2016 investigated the possibility of a new degree for non-"siviløkonom" and international degree students, but this suggestion was not implemented. Since then, the concept of "international majors" has become less relevant, given that all majors now have been opened for international degree students.

1.4.2 The MØA committee 2018-2019

The mandate of the so-called "MØA committee" was to evaluate the structure of the master programme and suggest improvements, with special focus on academic progression. The mandate was based on a decision by the Vice Rector for Academic Affairs in March 2018. The committee was led by the programme manager and had members from all the academic departments at NHH, as well as students and representatives from the Office of Academic Affairs.

The basis of the work was the NHH strategy for 2018-2021, the restrictions imposed by the Universities Act and it's regulations,[4] as well as the requirements for the Siviløkonom title.[5] The committee delivered its final report in February, 2019.[6] The report was discussed in the Academic Committee, and the programme manager produced a follow-up report[7] with a more in-depth evaluation and recommendations about the various proposals. The programme manager's recommendations were then subjected to a hearing process,[8] followed by another debate in the Academic Committee and final decisions made by the Vice Rector for Academic Affairs.

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[4] https://lovdata.no/dokument/SF/forskrift/2005-12-01-1392
[5] https://www.uhr.no/_f/p1/i4e6fc9ed-0645-4edb-8a65-e7d7bca68723/vilkar-for-bruk-av-tilleggsbetegnelsen-sivilokonom-vedtatt-nroa-060616-oppdatert-november-2018-endelig-versjon-1.pdf
[6] *The MScEBA (MØA) programme at NHH – suggestions for structural improvements.* Report from the MØA committee (2019).
[7] *Structural improvements in the MScEBA (MØA) programme at NHH – evaluation and recommendations.* Report from the MScEBA programme manager (2019).
[8] *Høringsuttalelser – Forslag til endringer i Masterstudiet i Økonomi og Administrasjon*. Rapport fra Kjetil Sudmann Larssen (Seksjon for Utdanningskvalitet) til prorektor Linda Nøstbakken (28.10.2019).

The overall recommendations of the MØA committee were the following:

1. Majors must be sustainable in terms of student numbers. Some of the current majors have very few students and should be discontinued.
2. The future majors should be more distinct and focused than the current majors.
3. The amount of mandatory content should be increased, to enable more courses with progression.
4. The number of courses in the programme should be reduced.
5. The quality assurance mechanisms should be strengthened to maintain the quality and relevance of the majors at a reasonable cost.

More specific recommendations were made with respect to the following issues:

a) Which majors should be offered?
b) Formal structure and requirements of the majors
c) Elective courses
d) International students
e) Quality assurance mechanisms

The process started by the work of the MØA committee has led to several changes. Since the work of the committee, and the following hearing process and decisions, have taken place during the evaluation period, the process and the outcomes will be described in detail in the later chapters in this report. The structural changes a-d will be covered in Chapter 2, and the changes with respect to quality assurance mechanisms in Section 4.4. A brief summary of the changes are:

- Discontinuation of small majors (INB and NBD).
- The structure of all the remaining majors, except ENE and MBM, have been reformed, to make them more focused and to facilitate better progression for the students.
- All majors are now open for students with international bachelor's degrees, including students not fluent in a Nordic language.
- The quality assurance mechanisms in the majors have been strengthened by giving the reference groups a formal role in the planning of the curriculum of the majors. To assure the quality and relevance of the majors, the reference groups have also been extended with student representatives, as well as external representatives.

1.5 About this evaluation

The programme evaluation work was started in the spring of 2021. It has been led by programme manager Endre Bjørndal,[9] with administrative assistance from the Section for Educational Quality.

The work of the MØA committee[6] in 2018-2019, the evaluation by the programme manager[7] and the opinions collected in the subsequent hearing process[8] are also considered elements of the programme evaluation and will be discussed in Chapter 2 and Section 4.4.

In addition to data that are reported as part of the quality assurance system on a semester- or yearly basis, this report builds on extensive analysis of data from the student system FS ("Felles Studentsystem").

[9] Endre Bjørndal was programme manager until July 2021, when Jan Haaland took over this role.

The evaluation has been discussed in several meetings by the MScEBA reference group, consisting of the Profile Coordinators, the Academic Director of CEMS MIM, as well as a student representative.

As part of the evaluation, an evaluation panel was appointed. In their meeting in February 2022, they discussed the report, and specifically, the discussion questions at the end of each chapter. The panel consisted of the following members:

- Rolf Andreas Arnestad Gjevre (student representative)
- Janne Flovik Sande (BSc-NHH, MSc-CBS, presently working for Pierre Robert)
- Kari Due-Andresen (BSc-NHH, MSc-NHH, presently working for Akershus Eiendom)
- Patrick Narbel (BSc-Lausanne, MSc-NHH, PhD-NHH, presently working for Go Solr Ltd)
- Steef van de Velde (Rotterdam School of Management, absent due to illness on the day of the meeting)
- Endre Bjørndal (Programme Manager 2017-2021)
- Jan I. Haaland (Programme Manager 2021-)
- Kjetil Sudmann Larsen (Head of Section for Educational Quality)
- Kurt-Rune Bergset (Section for Educational Quality)

The report is written by Endre Bjørndal, with contributions from Kurt-Rune Bergset, Hilde Rusten, Astrid Foldal, Jan Haaland and Kjetil Sudmann Larssen.

2. PROGRAMME CONTENT AND STRUCTURE

2.1 Learning outcomes and overall structure

The intended learning outcomes of the programme, in accordance with the Norwegian qualification framework[10] are listed in Figure 1. The different majors in the programme have their own learning outcomes, which specifies in more detail what the general learning outcomes means in each major.

Figure 1 Learning outcomes of the MScEBA programme.

Knowledge

The candidates:

- have an in-depth and up-to-date knowledge of relevant theories and empirics within economics and business administration
- have solid competence in empirical methods
- have broad insight in relevant national and international challenges
- have knowledge of sustainability and ethical issues

Skills

The candidates:

- have strong analytical skills
- can work independently with advanced problems
- can update themselves and apply new knowledge throughout their career
- can apply achieved knowledge to new areas

General Competence

The candidates:

- can communicate with both specialists and non-specialists about their academic field
- have solid basis for operating professionally in an international setting
- can contribute to innovation and entrepreneurship
- can reflect upon, and take into consideration, sustainability, and ethical issues.
- understand implications of information technology in business and society

The smallest building block of MScEBA is a course or seminar. NHH has a standard course size of 7.5 ECTS credits. However, there are also seminars of 2.5 ECTS. The course portfolio of the master consists of approximately 140 unique courses including five courses[11] offered only in the Master's in Accounting and Auditing (MScAA). For a complete list of courses, see nhh.no. The course portfolio is quite broad, spanning the area of economics and business administration, and the available courses may be arranged in a multitude of ways to provide interesting and challenging programmes that tailored to the candidates' interests and what they see as beneficial for their career opportunities.

The courses are delivered by the departments, but they are in a sense owned by the majors ("hovedprofiler"), as indicated by a three-letter abbreviation in the course code (e.g., FIEXXX for finance courses). The majors are governed primarily by the profile coordinators, who report to the

[10] https://www.nokut.no/en/norwegian-education/the-norwegian-qualifications-framework-for-lifelong-learning/

[11] MRR416 Foretaksrett, MRR418 Skatte- og avgiftsrett, MRR451 Revisjon II, MRR452 Finansregnskap II, MRR443 Verdsettelse i regnskapet, MRR453 Digital revisjon

programme manager, and each profile coordinator has a reference group that he/she can consult about decisions regarding development of the profile course portfolio and profile-specific mandatory requirements.

Nearly all the MScEBA courses are assigned to one of eight majors, presented in Table 1. All the MScEBA majors are now open for international students, after BUS and ECO were opened from the autumn semester of 2020. The latest change follows from the school's revised language guidelines from 2019.[12]

Table 1. Programme portfolio, history of majors in MScEBA

Abbr.	Name	Estab-lished	Inter-national	Closed
BAN	Business Analytics	2018	2018	
ECN	Economics	2014	2015	
MBM	Marketing and Brand Management	2010	2010	
ENE	Energy, Natural Resources and the Environment	2008	2008	
BUS	Business Analysis and Performance Management	2004	2020	
ECO	Economic Analysis	2004	2020	
FIE	Financial Economics	2004	2015	
STR	Strategy and Management	2004	2015	
NBD	New Business Development	2018	2018	2021
INB	International Business	2004	2004	2020

Figure 2 shows the development in the majors' share of students over time. Financial Economics (FIE) and Business Analysis and Performance Measurement (BUS) together attract approximately 60 per cent of the students. BUS is broad, perhaps the broadest of all the majors, and contains courses in accounting (management and financial), auditing, logistics and supply chain management, and management control, whereas FIE is more homogeneous. Business Analytics (BAN) started as a track in BUS in 2017 (BUS-BA) and was launched as a separate major in 2018. The four largest majors, FIE, BUS, BAN and STR, had 85 % of the students in the programme in 2020. Economics (ECN) and Energy, Natural Resources, and the Environment (ENE) both attract around 5 % of the students, while Economic Analysis (ECO) and Marketing and Brand Management (MBM) are smaller.

For INB, the MØA committee recommended that INB should be discontinued in its present form, and to consider giving CEMS MIM status as a major. The discontinuation of INB was supported by the programme manager's evaluation as well as in the following hearing, and INB was therefore discontinued from 2020. The closing of INB coincided with the decision, in accordance with the revised language guidelines at NHH,[12] that it should be possible to take all MScEBA majors in English. Giving CEMS MIM status as a major was not recommended by the programme manager, since the current integration of CEMS MIM as a minor seems to work well, and since the recent report from the CEMS Peer Review Team specifically highlighted the ability to combine CEMS MIM with any of the existing majors as one of the key strong points. The recommendation of the programme manager regarding CEMS MIM was also supported by the hearing responses, including the CEMS academic director, and the final decision by the Vice Rector was therefore to keep CEMS MIM as it is, e.g., as a minor.

[12] https://www.nhh.no/en/about-nhh/language-guidelines/

New Business Development (NBD) was launched as a major in 2018, but it has not attracted many students since then, although the courses in the major have been popular. Also, Marketing and Brand Management (MBM) has struggled with low and falling student numbers in the recent years, and the MØA committee suggested that these two majors should be merged. The evaluation by the programme manager pointed out that the topics in NBD are also related to the Strategy and Management (STR) major, and many of the NBD courses could also fit in an STR. The recommendation by the programme manager was to give NBD more time to prove that it was sustainable. If student numbers did not increase, the NBD courses could either be offered in a sub-track in MBM or STR. Student numbers did not pick up, neither in 2019 nor 2020, and the Vice Rector finally decided to discontinue the NBD major from 2021. By then, an entrepreneurship sub-track had already been added to the STR major, and most of the NBD courses are offered there. NBD is still offered as a minor.

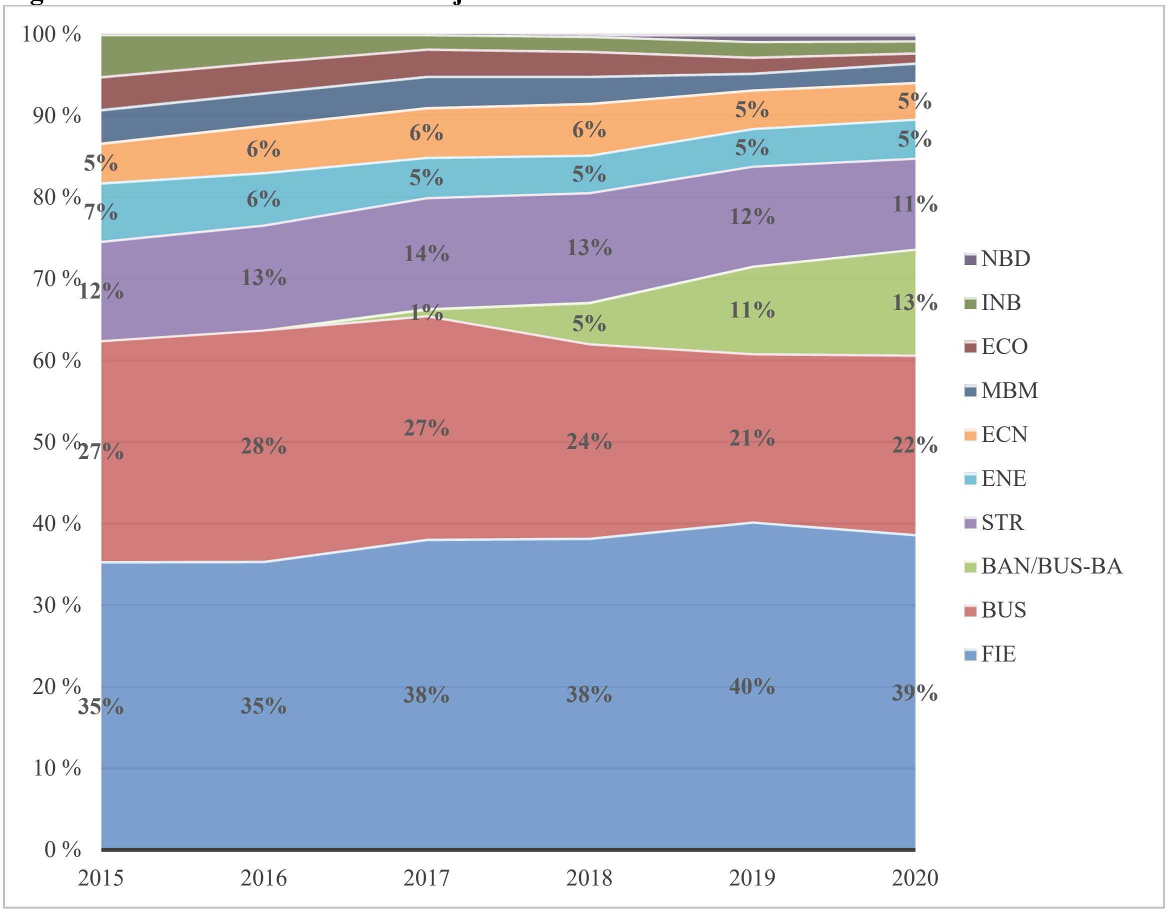
The MØA committee recommended that Economic Analysis (ECO) should be discontinued, due to the small number of students in the major, and to replace it with an advanced track in the Economics (ECN) major. Further analysis showed, however, that the admission quality of ECO was very good and that it contributes significantly to the recruitment of PhD students from the MScEBA programme, and the programme manager therefore recommended to keep this major. Moreover, there is considerable overlap between ECO and the Research Distinction Track (RDT).[13] There has been some problems in implementing the latter scheme, and RDT candidates were not followed up by the departments in a satisfactory manner. Therefore, the programme manager recommended to drop RDT and focus the resources on ECO. The hearing responses were mixed with respect to ECO, but there were not major objections to dropping RDT. The final decision by the Vice Rector was to keep ECO and to discontinue RDT.

The future structure of the major in Business Analysis and Performance Management (BUS) was also discussed by the MØA committee. Some committee members argued for a more focused BUS major covering the typical competence of a CFO, and they also proposed the establishment of a new major in operations management, at present covered by BUS. Other members argued for a broad BUS major, as today, covering management control, accounting, and operations management. The evaluation by the programme manager suggested that separate and more focused majors would facilitate more progression and make it easier for students to plan their studies, but that removing some combinations that exist in a broad BUS major could make it more difficult for students to tailor their own major, based on their interests. Also, integration of operations management with other subjects contributes to increased understanding of economic implications of technological choices, and this could be more difficult if the subject is taught in a separate major. A new OM/SCM major could potentially attract students that would otherwise not have chosen NHH. Given Norway's long traditions as a shipping nation, a new major with focus on Shipping and Logistics could be attractive to international students, as was the case for the major in Energy, Natural resources, and the Environment (ENE). However, a new major must be sustainable, i.e., the demand for it should be sufficient to justify the additional costs for NHH and the involved departments. The following hearing process did not reveal any new arguments. The Department of Business and Management Science, which would most likely have a central role in the establishment of a new major in operations management, stated that they at present did not have enough faculty for the development of the new major, although they supported the idea of exploring the potential for a new major in Shipping and Logistics.

[13] Introduced in 2014. The stated goal was to recruit more NHH master students to the PhD programme and to prepare the master students for a PhD education.

The Department of Accounting, Auditing and Law has submitted a proposal[14] for a new MScEBA major in Accounting. The new major would replace the Financial Accounting track in the BUS major, although some of the financial accounting courses would still be available as part of the BUS major. According to the proposal, the curriculum of the new major would also include courses shared with the MSc programme in Accounting and Auditing (MScAA). The new major would offer a more advanced accounting specialization than is currently possible within BUS.

Figure 2. Share of students in the majors.



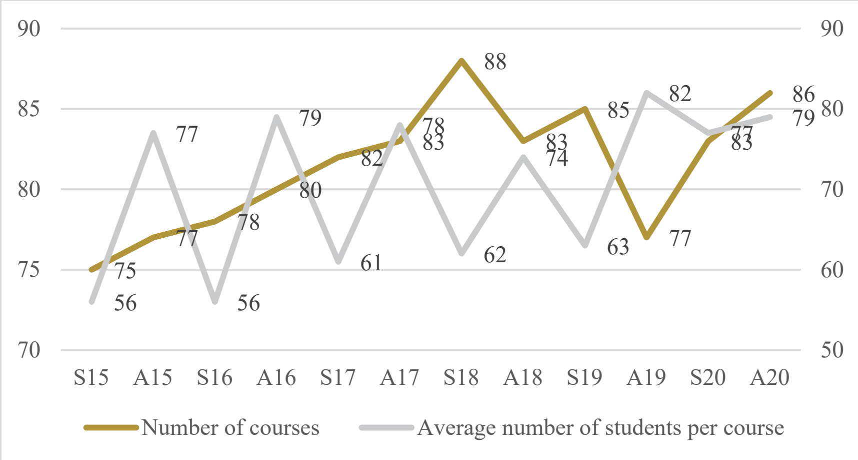
2.2 The course portfolio

Figure 3 shows the development in the number of courses in the programme and the average size of the courses. We see a steady increase in the number of courses from 2015 until the spring semester of 2018, but no clear trend after that. However, the total number of students in the programme has also increased, so we see from the figure that the average course size also shows a positive trend. We also see from Figure 3 that the autumn courses have, on average, more students than the spring courses. This is probably because the students mostly take their obligatory core courses in the autumn semester, either because they are only given in the autumn semester or because the students prefer, when they have a choice, to take these courses early. We see the same tendency in Figure 4, where the share of

[14]The proposal was submitted to the programme manager on October 15, 2021, and has since been subject to a hearing in the NHH organization. A final decision regarding the details of the new major is due January 2022.

very large courses (>100 students) tends to be higher in the autumn semester than in the spring semester.

Figure 3. Number of courses and average course size.



From Figure 4 we see that the share of very large courses, i.e., with more than 100 students, follows the same positive trend as the average course size. The share of very small courses, i.e., courses with less than 30 students, followed a clear downward trend until the autumn semester of 2020. Note that this was the first semester with entirely digital teaching during the COVID-19 pandemic, and it is therefore difficult to compare it to a normal semester. The MScEBA course portfolio is large and varied, as illustrated in Figure 5, which shows the courses that were given in 2020. The size of the courses this year ranged from 2 to 439 students.

Figure 4. Share of small and large courses.

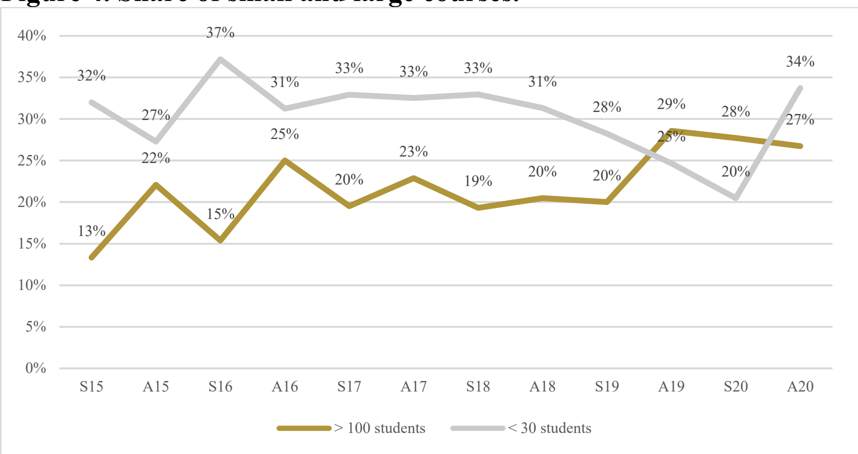
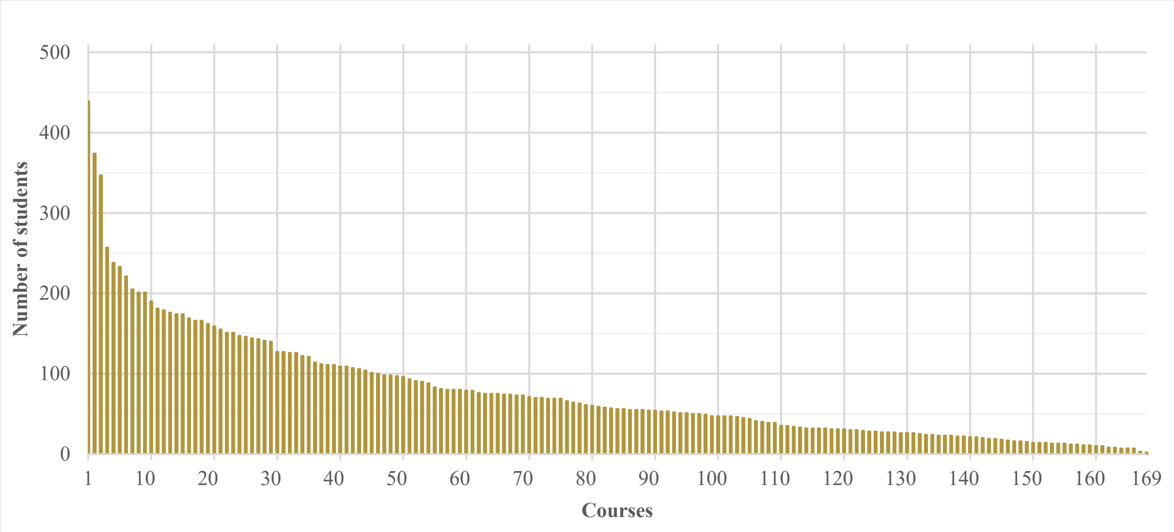


Figure 5. Number of students per course (spring 2020 / autumn 2020).



2.3 Management of student choice and progression in the programme

2.3.1 Structure of the majors

All students in the MScEBA (Master i Økonomi og Administrasjon (MØA) in Norwegian) programme must complete a major, consisting of at least 45 ECTS of course work and a master's thesis of 30 ECTS. There are currently 8 majors:

- FIE Financial Economics
- BUS Business Analysis and Performance Management
- MBM Marketing and Brand Management
- ENE Energy, Natural Resources, and the Environment
- ECO Economic Analysis
- ECN Economics
- BAN Business Analytics
- STR Strategy and Management

The majors have specific requirements, as shown in Table 2. The table shows the amount of mandatory content in the majors. "Obligatory" means that the requirements can only be fulfilled by taking a specific course. "Semi-obligatory" means that the students can choose from a small set of courses, e.g., they must take 2 out of 4 courses. All students in the MScEBA programme must complete one course (7.5 ECTS) about empirical methods,[15] and each major has a list of approved courses in empirical methods that the students can choose from. In addition, the students must take 2.5 ECTS from a list of approved ethics courses, but this list is not major-specific.

We see that the amount of mandatory content varies considerably, from 7.5 for ENE to 30 for BAN. The degree of flexibility allowed within the mandatory content also varies considerably. Some of the majors have all the mandatory content in semi-obligatory courses, meaning that the students have

[15] The obligatory/semi-obligatory courses in BAN cover this requrement.

several ways of fulfilling the mandatory requirements. Other majors have most of the mandatory content in obligatory courses.

Table 2. Mandatory content in the MScEBA majors. Numbers in parentheses indicate changes in the programme structure from 2018 to 2021.

	BAN	FIE	BUS	ECO	ECN	STR	MBM	ENE
Obligatory courses	22.5 (+7.5)	15 (+15)	15 (+15)	7.5	15	7.5[16]	0	0
Semi-obligatory	7.5 (-7.5)	0 (-15)	0 (-15)	22.5 (+22.5)[17]	0	0	7.5	0
Empirical methodology	0[18]	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Total ECTS	**30**	**22.5**	**22.5**	**37.5 (+22.5)**	**22.5**	**15**	**15**	**7.5**

The MØA committee made the following recommendations regarding the formal structure and requirements in the majors:

a) Each major will still consist of at least 45 ECTS of course work. It was decided to keep the current major requirements to maintain possibilities for specialization and progression within the majors.
b) The amount of mandatory content should be increased to at least 22.5 ECTS for all majors; i.e at least 3 mandatory courses (these may be semi-obligatory, see Table 2, i.e., students could be allowed to choose from a set of more than 3 courses).
c) Every major should have at least some mandatory content consisting of obligatory courses, i.e., courses that must be taken by all students in the major. This requirement will ensure progression, because all other courses in the major can build on the obligatory courses.
d) If a mandatory course does not build on another mandatory course in the major, it should be possible for all students to take it in the autumn semester.
e) To ensure progression and specialization, a major can have sub-tracks.
f) Students should, as a minimum, have completed the mandatory requirements in their major before they write their thesis.

Following an evaluation by the programme manager and a subsequent hearing process, it was decided that most of these recommendations could be implemented. Most majors went through a reform process (led by the profile coordinators) from 2019, with the exception of BAN, which is relatively new, and ENE and MBM, where the reform processes are still taking place. The numbers in Table 2 show that the amount of obligatory content has been increased or is planned to increase in several majors, and that there has been a shift from semi-obligatory to obligatory content, in line with recommendation b) and c) above.

Recommendation d) states that basic core courses should be possible to take in the autumn semester, to facilitate as much progression as possible. The students are encouraged to go on exchange for one semester, and many of them will therefore have only one year to complete the course part of their major. If progression is supposed to build on basic core courses, it is vital that the basic courses can be taken in the first semester. Since the revised language guidelines for the school[12] stated that all majors

[16] A new (obligatory) course "Strategy in Practice" is under development. If introduced, it would bring the obligatory quota for STR up to 15 ECTS.
[17] The requirement is stated as "minimum 3 from a list of courses", where the list includes 10 courses (as of autumn 2021).
[18] The obligatory courses in the BAN major consist courses in descriptive/predictive/prescriptive analytics. Since these courses focus on methodology, they also cover the general methodology requirement.

should be possible to take in English, the implementation of this requirement was made more difficult by the fact that some core courses are given in both Norwegian and English. Specifically, this applies to the Financial Economics (FIE) and Business Analysis and Performance Management (BUS) majors, where the core courses are given in both Norwegian and English. The FIE core courses are given in English every semester, while BUS, with fewer students, typically has offered the Norwegian versions of the core courses in the autumn semester and the English versions in the spring semester. Hence, the problem mainly applied to BUS, where international students, with the current setup, would have a non-optimal progression. The MØA committee did not agree on how to solve this problem. Some members wanted to require that all core courses should be given in English only, whereas others argued that the quality of some of the courses, at least with the present faculty, would decline if one were to require that they should be given in English. Hence, they found it sufficient that the English version, as a minimum requirement, should be offered in the autumn semester. The programme manager stated[7] that the study quality must be acceptable for all students, including non-Nordic students, and recommended that the relevant profile coordinator and the department work out a plan for acceptable study quality at reasonable cost. The responses in the hearing process were mixed.[19]

Sub-tracks (e) could be used to communicate specializations or topics within the majors. Several majors already had sub-tracks. The purpose of the existing tracks was to give advice to students on how they should choose their courses, and there were no track-specific formal requirements. The tracks were not listed on the students' diplomas. Both the programme manager and several of the hearing responses pointed to the added complexity that would result from formal track requirements, and such requirements have not been implemented. In the reforms of majors that have followed, however, several majors have either introduced new or reformulated existing sub-tracks to make the majors more relevant. Table 3 show that all but two of the current majors use sub-tracks.

[19] In the following reform of BUS, it was decided, after discussions in the extended BUS reference group, that both versions of the courses should be given in the autumn semester from the implementation of the revised BUS structure in 2020. Since most of the students in the BUS major are Norwegian, the distribution of students between the courses was highly skewed, with very few students taking the English versions. The situation was not satisfactory for the involved departments, which questioned the non-optimal use of faculty resources, and the students demanded more flexibility. After discussions in the reference group in the autumn of 2020, it was decided to test a setup, from the autumn semester of 2021, where one of the two core courses is given in Norwegian in the autumn and English in the spring, while the other course follows the opposite pattern.

Table 3. Sub-tracks in the MScEBA majors.

Major	Sub-tracks
Business Analytics	None
Economics	Global Challenges and Economic Behaviour / Competition and Business Strategy / Macroeconomics, Risks and Sustainability
Marketing and Brand Management	Brand Management / Marketing, Entrepreneurship, and Innovation / Marketing Research for B2B and B2C Markets
Energy, Natural Resources and the Environment	Energy and Electricity Markets / Energy and Natural Resources / Environment, Climate and Sustainability / Shipping
Business Analysis and Performance Management	Financial Accounting / Management Control / Sustainability Management / Technology and Operations Management
Economic Analysis	None
Financial Economics	Corporate Finance / Capital Markets / Quantitative Finance and FinTech
Strategy and Management	Leadership and Change / Digitalization and Growth / Strategic Analysis and Analytics / Entrepreneurship

The last recommendation from the MØA committee regarding formal requirement in the majors concerned the master thesis. It is recommended that students write the thesis in the fourth semester, but this is not a requirement. Indeed, many students that go on exchange choose to do this in the fourth semester, and typically they will then write the thesis in the third semester. Since the thesis must be about a topic related to the student's major, it could be an advantage to have completed most of the courses in the major before doing the thesis work. The MØA committee recommended to implement a formal requirement stating that all the mandatory courses must be completed to apply for the master thesis supervisor. The programme manager[7] stated that, although the measure would probably have a positive effect on quality, it could be hard to implement in practice. The hearing responses were mostly sceptical and questioned the need for such a requirement, and it was not implemented.

2.3.2 Minors and electives

The elective courses account for 45 ECTS, which may include courses taken on during exchange semesters abroad. Before 2021, students with a bachelor's degree from a Norwegian institution were also required to take a minor of 22.5 ECTS, which entitled them to receive the siviløkonom title. Most students that enter the programme with a non-Norwegian bachelor's degree do not fulfil the bachelor requirements for the siviløkonom title, hence the minor requirement did not apply to them.

The minors were to some extent not very meaningful, since they contained the same set of courses as the majors, and with no requirements for core courses to obtain a minor. The combination of obligatory minors and lack of structure caused the students to form minors that in many cases consisted only of peripheral courses. This happened because students primarily chose courses based on their preferences and then fitted major/minor to their chosen course combination. Hence, the chosen minors were in many cases not very meaningful.

The MØA committee also recommended some changes regarding the electives in the MScEBA programme. While the flexibility within the majors was somehow reduced, the flexibility with respect to the electives was increased with the following proposals:

a) It was proposed to replace the minor requirement with the requirement that at least 22.5 ECTS of course work is taken outside of the major. This increases the flexibility for the students, since they can combine courses from several majors other than their own, while still satisfying the siviløkonom requirements.

b) Students could still be given the option of labelling some of their electives with the title of a "minor" on their diploma, given that at least three electives are chosen within a particular specialization.
c) International options, e.g., exchange and Innovation School, will count as electives.
d) Majors should, as a main rule, be taken at NHH and cannot be supplemented with courses taken as part of an exchange. Exceptions could be made by maintaining a list of accepted courses at popular partner schools. The programme manager and the profile coordinators will approve the courses initially. Once a course is on the list, applications can be handled by the Office of Academic Affairs.

Proposal a) from the MØA committee was to replace the minor requirement with a simpler requirement that students must choose at least three courses outside of their major. By keeping the minor as an option (proposal b)) for the students, it would still be possible for them to use the title of the minor to signal specialization within a particular field. Proposal c) was related to the relaxation of the minor requirement, since Innovation School and courses taken on exchange were previously listed as minors on the student diplomas. In the hearing process, two of the academic departments expressed support for relaxing the minor requirement, whereas the other departments did not mention this proposal. Apart from an objection from the administration regarding increased complexity with optional labels, there were no objections to proposals a)-c), and they were therefore implemented.

The set of courses available in the minors have, for most of the profiles, been the same as in the corresponding majors,[20] including courses that are borrowed from other majors. The only restriction on the choice of courses in a minor has been that the minor cannot include courses from the student's major.[21] A typical student would choose the courses that he/she were interested in from among the courses available in the minor, and the result could easily be minors consisting entirely of courses that were not central in the subject field of the given minor. With optional minors it has been possible to strengthen their requirements so that they become meaningful without restricting the flexibility of the students too much. Table 4 shows the requirements that were in place when the "new" minors were launched in the autumn semester of 2021. The changes were proposed by the profile coordinators and approved by the programme manager, following discussions in the overall reference group for the programme as well as the respective reference groups for the profiles.[22] As shown in the table, the minors have been restricted by only including a subset of the courses in the respective majors and/or imposing a requirement to take a core course.

[20] The only exception has been Business Analytics, where the set of courses in the minor has been a strict subset of the courses in the major.
[21] This requirement was introduced in 2017. Since many courses belong to multiple majors, the requirement has been linked to the course codes, where the code of a course indicates its "primary" major.
[22] Reforms of the ENE and MBM majors/minors have not been done yet.

Table 4. Comparison of content/structure of minors and majors.

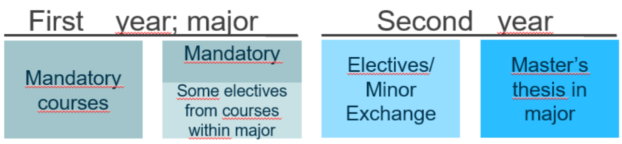
Name	Set of ourses in minor	Core requirements
BAN	Subset of major	Minimum one core course
ECN	Same as in major	Minimum one core course
MBM	Same as in major	No requirements
ENE	Same as in major	No requirements
BUS	Subset of major	Minimum one core course
ECO	Subset of major	Minimum one core course
FIE	Same as in major	Minimum one core course
STR	Same as in major	Minimum one core course
NBD	No major exists	No requirements
Taxation	No major exists	No requirements

Proposal d) from the MØA committee opened up for the possibility that some courses in a student's major could be taken at other schools at NHH, based on a list of pre-approved courses. However, the subsequent evaluation by the programme manager pointed out that maintaining updated lists of approved courses at partner schools would require considerable resources in the administration and therefore recommended that all courses in the majors should be taken at NHH. This was supported in the hearing process, although the students argued for the possibility to take part of the major abroad.

2.4 Comparison with similar programmes[23]

We will focus on our key Nordic competitors: BI, CBS, Stockholm School of Economics, Aalto School of Business. Figure 6 illustrates the typical programme structure of our competitors, and Table 5 gives a summary of the mandatory content in the programmes.

Figure 6. Typical programme structure.



Norwegian Business School (BI)

BI has a very structured MSc in Business programme[24], which also qualifies for the siviløkonom degree. They have a total of 7 different specializations: Economics, Finance, Strategy, Logistics/Operations/Supply chain, Marketing, Leadership and change, and Accounting and Business Control. All 7 specializations have the same 5 core mandatory courses the first year. They also have 5 mandatory (but mostly different) programme courses the first year. In the second year one semester is the master's thesis, and one semester is elective courses (where most students are on exchange abroad). In addition, BI offers nine more specialized MSc programmes.

[23] This section is based on work done for the MØA committee in 2018-2019.
[24] https://www.bi.edu/programmes-and-individual-courses/master-programmes/business/

Copenhagen Business School (CBS)

CBS is a large business school with approx. 3300 students[25] at the master level per year at their MScEBA programme[26]. This programme has 14 different specializations, but several of these are similar, e.g. Finance and Investments, Finance and Applied Economics, Finance and Strategic Management. CBS has a structure of each specialization very similar to BI; with mandatory courses (no electives) the first year, and master's thesis and electives the second year.

Stockholm School of Economics (SSE)

SSE has 5 specialized master programmes[27]: Economics, Accounting, Finance, Business and Management, and International Business. Within each master programme ('spesialization profiles'), there are between 2-4 mandatory courses, and 6 to 11 elective courses where 4 to 6 courses must be elected (8 courses in total the first year in a major). The second year consist of master's thesis and electives (normally taken abroad).

Aalto School of Business

Aalto has 11 electives in their MScEBA programme[28]. They have a structure more like NHH, where there are 2 to 4 mandatory courses in each field of specialization profiles, and 5 to 7 courses as part of the major to be selected from a list of approx. 10-15 different courses. Elective courses and master's thesis are normally taken the second year.

The structure of the programmes at BI, CBS and SSE, with little or no flexibility in the first study year, can be illustrated as in Table 5 below. The table shows that these programmes all have 60 ECTS of mandatory content, across or within majors. The MScEBA programmes at NHH and Aalto are much more flexible, with much less mandatory content. However, no major at Aalto has as little mandatory content as the minimum at NHH (7.5 ECTS).

Table 5. Mandatory content (ECTS) in some master programmes.

Institution	NHH	Aalto	BI	CBS	SSE
Programme	MScEBA	MScEBA	MSc in Business	MScEBA	Various
Mandatory across majors	2.5[29]	6	30	7.5	0
Mandatory within majors	7.5-37.5	18-42	30	52.5	60
Sum mandatory content	10-40	24-48	60	60	60

Benchmarking of our MScEBA programme against other institutions shows that NHH has a relatively high degree of flexibility and a relatively low share of common/mandatory content.

The flexible structure has several advantages:

- Students can choose unique combinations of course tailored to their interests and what they see as beneficial for their career opportunities.
- Since resource allocation at NHH is to a large extent linked to teaching output, the academic departments have clear incentives to innovate and offer courses that are relevant for today's businesses. An example is the increased focus on technology and digitalization in the last few

[25] https://www.cbs.dk/files/cbs.dk/call_to_action/cbs_ff_2018_ny_web.pdf
[26] https://www.cbs.dk/files/cbs.dk/call_to_action/cbs-kandidatuddannelser-2018_0_0.pdf
[27] https://www.hhs.se/en/education/msc/
[28] https://www.aalto.fi/school-of-business/masters-programmes
[29] The students have to take an ethics course of at least 2,5 ECTS. The course can be chosen for a list of pre-approved courses. In the autumn of 2021, the list has 9 courses, most of which (7) have a size of 7,5 ECTS.

years, which has resulted in the introduction of a considerable number of technology-related courses in the master programme.

However, the flexibility comes at a cost:

- The flexibility makes it harder to guarantee that the students achieve the stated learning outcomes of the master programme.
- Flexibility hinders academic progression (ref. the Siviløkonom degree's clear progression requirements). In principle, progression could be secured by specifying prerequisites in the more advanced courses. However, a course responsible will be reluctant to do this if he/she fears that it will result in fewer students taking the course. More mandatory content in the majors could facilitate a higher degree of academic progression. Since a considerable number of the students go abroad on exchange in one of the four semesters, they will in practice only have one year to finish their major, and the academic progression must in practice be in the spring semester of the first year.
- The growth in the number of courses in the majors have made them less focused, and it is harder for students to distinguish between them. A major with a distinct specialization suitable for a specific position in a corporation or profession could be advantageous both for the students and the employers.
- A large course portfolio, many of them quite small, is costly to produce.
- To maintain the flexibility for the students, the scheduling section needs to avoid collisions in teaching and exams between popular courses, and this is very hard to achieve. In practice, therefore, it is often not possible for the students to achieve the desired course combinations.

2.5 Discussion questions

Q1) Does the programme have the right majors? If not, which majors should NHH consider adding? Should we discontinue some of the small majors?

Q2) The MScEBA programme at NHH has a rather flexible structure compared to most of our competitors. Moderate adjustments have been made to improve progression in the majors and make them more focused. Is this enough, or should the structure be tightened further?

Q3) The students must take 2.5 ECTS from a list of approved ethics courses, but this list is not major-specific. Should this requirement be strengthened, e.g., to 7.5 ECTS and by changing the name to "Ethics, responsibility, and sustainability"? Should it be linked more clearly to the respective majors, e.g., by requiring each major to offer at least one such course?

Q4) The size of the courses varies a lot, e.g., in 2020 it year ranged from 2 to 439 students. What is an acceptable range for course size, and what can the school do to avoid extremely small or large courses?

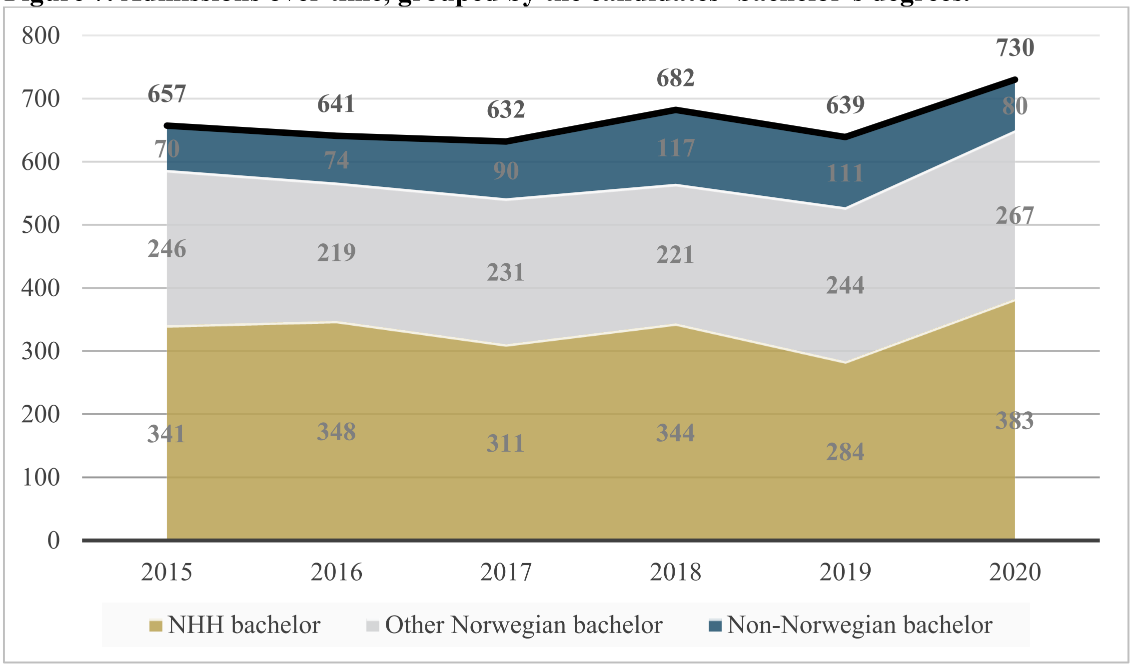
3. ADMISSION QUALITY

NHH's strategic objective[1] with respect to admission quality is to attract students with strong academic results and a high motivation for learning. Furthermore, our study programmes shall be a clear first choice in the fields of economics and business administration among Norwegian students and attract highly qualified international students.

3.1 Admission in numbers

The admission to the MScEBA programme has increased over time, as shown in Figure 7, and it reached a new all-time high in 2020, [30] with 730 students admitted. Approximately 50% of the new MScEBA students are admitted directly from the NHH bachelor programme. Of the external candidates, most have completed other Norwegian bachelor programmes, but an increasing number of students are also admitted based on non-Norwegian bachelor programmes.

Figure 7. Admissions over time, grouped by the candidates' bachelor's degrees.

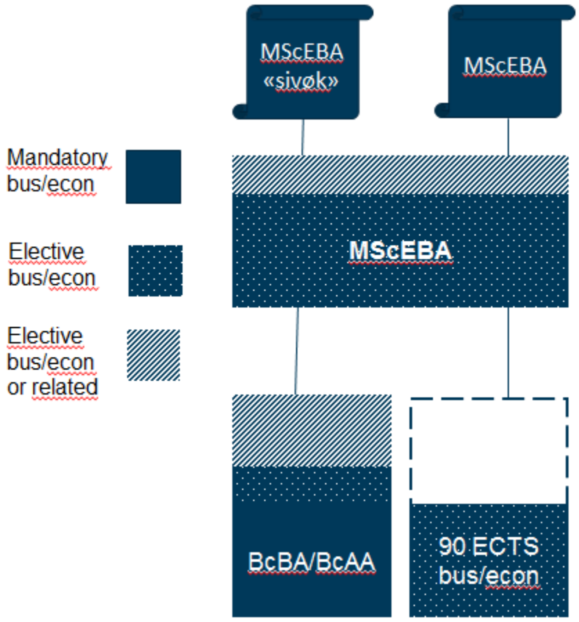


3.2 Academic admission requirements

There are two academic admission requirements to MScEBA; a Norwegian "siviløkonom" admission, and an international, non-"siviløkonom" admission, the latter referring to non-Norwegian bachelor degrees, and the two requirements lead to different diplomas, as illustrated in Figure 8.

[30] The admission in 2020 may have been affected by the Covid-19 pandemic. The negative effect on the labour market contributed by making education a relatively more attractive option for many, and the travel restrictions made NHH a more attractive option for students from Norway. The pandemic also lead to a significant reduction in the number of international students, many of whom could not come to Bergen due to travel restrictions. These students were offered to 1) follow the teaching digitally or 2) postpone the start of their studies until 2021. Of the 80 students that were admitted, 25 chose to follow the teaching digitally. There were also 62 students, in addition to the 80, that chose to postpone the start of their studies.

Figure 8. Two admissions into MScEBA, and their corresponding diplomas.



The Norwegian admission requirement[31] is a Bachelor's degree in Economics and Business Administration (BScEBA) according to the national plan,[32] or equivalent. The national plan was revised in 2018,[33] and the new plan will be implemented as admission requirements for the MScEBA programme at NHH from 2022. The national bachelor requirement is 120 ECTS of business/economics content, of which 90 ECTS is specified in more detail. All students admitted based on the national bachelor plan are awarded the siviløkonom title.

The requirements for applicants with non-Norwegian bachelor's degrees[34] are softer, both in total business content (90 ECTS business/economics/methodology), but particularly since it does not require coverage of specific subjects in the bachelor's degree. The requirement in terms of grade point average is on par with that of "siviløkonom", however, and with an additional GMAT requirement of 600 for some international groups. At least 30 of the 90 ECTS must be within business administration (i.e., not economics or methodology), and no more than 45 ECTS may be within methodological subjects.

After the decision, following the recommendations of the MØA committee, to make the minor optional, and to replace the minor requirement with a requirement that at least 22.5 ECTS of course work must be outside of the chosen major, the study requirements for students with Norwegian and non-Norwegian bachelor's degrees are, in practice, identical.

[31] https://www.nhh.no/studier/soknad-og-opptak/opptak-master-i-okonomi-og-administrasjon/

[32] "Plan for bachelor i økonomi og administrasjon", adopted on 17 October 2011 by the National Council of Higher Education in Business Administration (NRØA), the predecessor to Universites Norway – Economics and administration (UHR-ØA): https://www.nhh.no/contentassets/bbbee551fb9c461593eea8fb507dc012/plan-for-bachelor-i-okonomi-og-administrasjon.pdf

[33] "Minimumskrav for Bachelor i økonomi og administrasjon", adopted in November 2018 by Universities Norway – Economics and administration (UHR-ØA): https://www.uhr.no/_f/p1/i48e11d18-8b76-4089-acb1-511fa13135e4/boa-planvedtatt-av-uhr-oa-november-2018-endelig.pdf

[34] https://www.nhh.no/en/study-programmes/application-and-admission/admission-msc-in-economics-and-business-administration/

The softer requirements for applicants with foreign bachelor's degrees is an attempt to attract more international students to the programme, in accordance with NHH's strategy.[35] The differentiation has a problematic side effect, though, since it imposes stricter requirements on students with Norwegian bachelor's degrees, who are not allowed to apply for admission as "international" students.

Another difference between the two admission groups is that students with non-Norwegian bachelor's degrees apply directly to majors, while students in the Norwegian intake choose their major after they have entered the programme. Previously, only some majors were open to non-Nordic students, but following the decision, in accordance with NHH's revised language guidelines[12] and the recommendations from the MØA committee, that all majors should be possible to follow in English, the choice of majors is no longer restricted for this group.

3.3 Bachelor grades for admitted students

It is well-known that grading practices differ significantly between schools.[36,37] Specifically, the grading in the bachelor programme at NHH is stricter than in most other Norwegian bachelor programmes within Economics and Business Administration. Hence, subjecting bachelor students from NHH to a competition with external bachelor students based on grades would give the external bachelor students an unfair advantage, and NHH has therefore been allowed to guarantee our own bachelor students access to our master programmes. Hence, in effect NHH students enter a five-year programme when they are admitted to the bachelor programme, with an option to continue in one of our master programmes after they complete their bachelor's degree. This also means that comparisons of admission quality between the three admission groups shown in Figure 7 cannot be made based on their bachelor grades.

To study, at least in a partial way, the development of admission quality over time, we show a time series of bachelor grade point averages for external students with Norwegian bachelor's degrees in Table 6. The GPA requirement is quite stable over time. We see some decline of the grade requirement in 2019 and 2020, and this coincides with an increase in the number of admitted students in this admission group.

Table 6. Grades for external Norwegian admissions.

	2015	2016	2017	2018	2019	2020
Required GPA	3.9	4.1	3.9	4.0	3.9	3.8
Average GPA	4.2	4.3	4.3	4.3	4.3	4.2

For the internal bachelor students, we have detailed data about their choices and performance both in the bachelor and the master programme. This allows us to collect bachelor GPA averages not only at the programme level, but also for majors, as shown in Table 7. The data set covers 2168 students that entered the programme between 2015 and 2021 (spring). First, we note that the total average (3,7) is lower than the required GPAs for external students, shown in Table 6, and this means that some of the internal students would have been outcompeted by external students if they had to apply for admission

[35] https://www.nhh.no/en/about-nhh/strategy/

[36] Møen, J., & Tjelta, M. (2010). Grading standards, student ability and errors in college admission. *Scandinavian Journal of Educational Research*, *54*(3), 221-237.
https://openaccess.nhh.no/nhh-xmlui/handle/11250/164137

[37] Strøm, B., Falch, T., Gunnes, T., & Haraldsvik, M. (2013). Karakterbruk og kvalitet i høyere utdanning. *SØF-rapport*, *3*, 13.
https://www.regjeringen.no/globalassets/upload/kd/vedlegg/rapporter/karakterbruk_og_kvalitet_i_hoyere_utdanning.pdf

on the same terms. As stated above, NHH admits students to a five-year (3+2) siviløkonom programme, and internal bachelor candidates do not have to reapply to enter the master's programme.

A comparison of the average bachelor grades for students in different majors in Table 7 show considerable differences. The majors with the best students, as measured by the average bachelor GPAs, are Financial Economics (FIE) and Economic Analysis (ECO). The contribution of ECO to the overall admission quality of the programme was one of the reasons why it was decided, in the restructuring of the programme initiated by the work of the MØA committee, to keep this major, despite low student numbers. At the bottom end of the grade scale we find some majors with average bachelor GPAs below 3.5. The averages for Strategy and Management (STR) and Marketing and Brand Management (MBM) indicates significantly lower admission quality than the programme average.

There are no admission restrictions in the majors, so the observed grade differences result from student selection rather than competition between students. Students will choose the majors that fit their interests and abilities. We see that majors with a strong focus on quantitative analysis (FIE, ECO, BAN, ECN) attract students with higher grades than majors with a more qualitative focus (STR, MBM).[38] In between we find majors with a more mixed focus (BUS, ENE). One may of course question whether good bachelor grades is good measure of admission quality, but it is a stated goal[1] for NHH to attract students with strong academic results. Hence, the large differences between the majors in terms of this measure deserves some attention by the programme management. One may, e.g., consider reforms of majors with low admission quality, e.g., by introducing curriculum that would attract better students.

Table 7. Relative admission quality for majors. Average bachelor GPA for NHH students admitted to the various majors (2015- spring 2021).[39]

Major	GPA	N
FIE	3.9	817
ECO	3.8	56
BAN	3.7	133
ECN	3.7	128
BUS	3.6	544
ENE	3.5	70
STR	3.2	283
MBM	3.1	51
Other[40]	3.8	86
Total	***3.7***	***2 168***

[38] A possible objection could be that the overall bachelor GPA is not a good measure of admission quality, since the overall averages could hide differences between academic disciplines in the bachelor programme. Could it be, e.g., that students in "qualitative" majors in the master programme performed relatively better in qualitative bachelor courses? In a previous report, however, the same tendencies were found across sub-disciplines in the bachelor programme (BED, MET, SAM, SOL). See Table 3 in *Structural improvements in the MScEBA (MØA) programme at NHH – evaluation and recommendations. Report from the MScEBA programme manager (2019).*

[39] A=5, B=4, C=3, D=2, E=1

[40] Includes INB and NBD (due to low numbers) and students who were admitted but never registered for a major before leaving for various reasons.

3.4 Discussion questions

Q5) NHH will continue to make internationalization a strategic priority, and this is one of the development objectives that the school has committed to after the EQUIS reaccreditation. What can be done to increase the share of international students in the programme even further?

Q6) Is the seemingly low admission quality of some majors (STR and MBM) a problem? If yes, what can we do make these majors more attractive for good students?

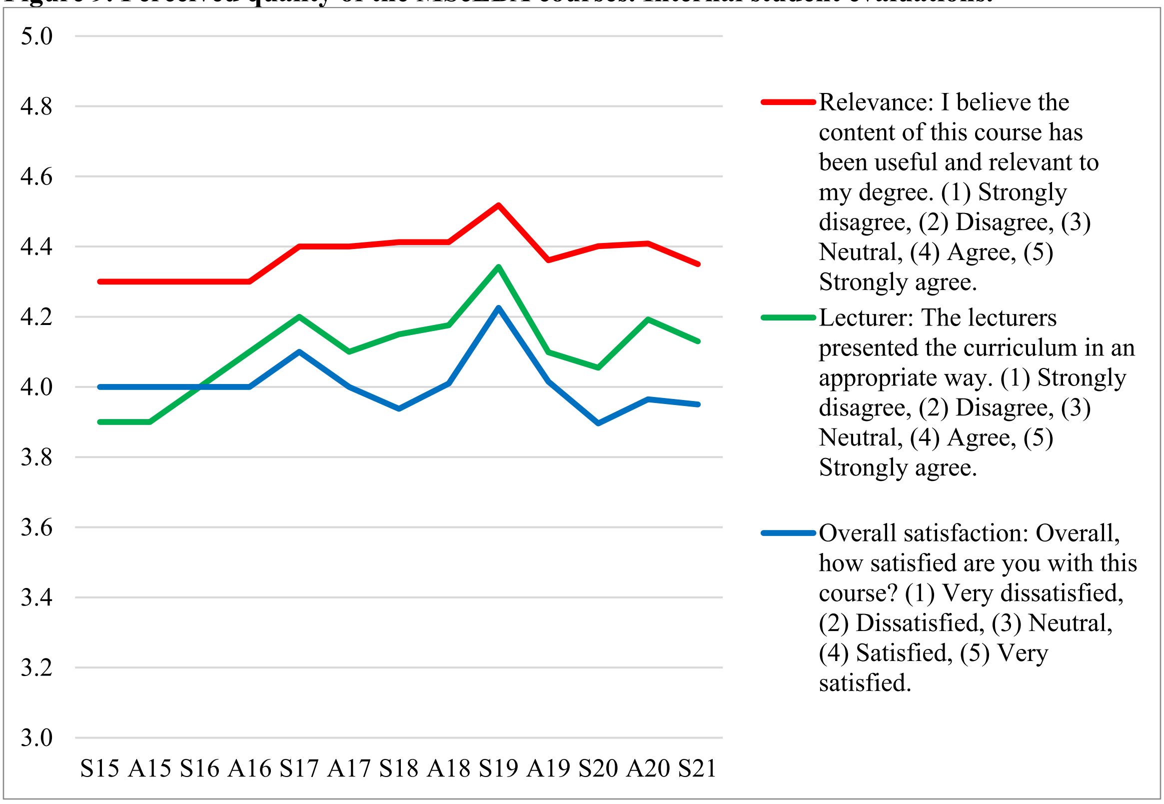
4. QUALITY OF STUDIES

NHH's strategic objective[1] with respect to study quality is to have a culture for quality in its education, where the administration, academic staff and students continuously strive to improve the quality of studies. Our teaching, study programmes and learning environment shall be on par with the best international business schools.

4.1 Perceived quality of courses and the programme

Figure 9 shows average results from evaluations of the MScEBA courses. Courses are evaluated along three quality dimensions: overall satisfaction, relevance, and the lecturers' ability to communicate the curriculum. We see some variation in the scores over time. In most semesters, the overall score was at least 4, i.e., the students were either satisfied or very satisfied. In the three semesters of 2020 and 2021, the overall score fell below 4, and this could be related to the restrictions caused by the COVID-19 pandemic, which necessitated a shift to mostly digital teaching and assessment. The average lecturer score is somewhat higher than the overall score, indicating that the students are satisfied with the lecturer's ability to present. The score on relevance is even higher, indicating that the courses are generally perceived as useful and relevant by the students.

Figure 9. Perceived quality of the MScEBA courses. Internal student evaluations.



The results from the annual survey Studiebarometeret,[41] conducted by the Norwegian Agency for Quality Assurance in Education (NOKUT), are shown in Table 8. This survey evaluates the programme along a number of dimensions. The score on overall satisfaction is well above 4 in all

[41] https://studiebarometeret.no/no/

years, and higher than for most of the Norwegian competitors. This is impressive, especially considering that the NHH programme is the largest MScEBA programme in terms of student numbers. We see, however, a dip in the overall score in 2020, possibly related to the consequences of the COVID-19 pandemic. The effect on the overall score was larger for the NHH programme than for comparable Norwegian programmes. A possible explanation is that student exchange with partner schools abroad is more important at NHH than at other Norwegian business schools. Since travel restrictions during the pandemic, at least in the first few semesters, made student exchange almost impossible, the effect for NHH was more dramatic than for the other schools.

The relevance score in Studiebarometeret is lower than the relevance score for courses. It is an aggregate of several specific questions, e.g., whether the students have received training in how to convey their skills and knowledge to potential employers, and whether companies/organizations contribute to teaching in the programme. The rating of the NHH master programme is, however, better than the average for other Norwegian business programmes.

Table 8. Perceived quality of the MScEBA programme. Studiebarometeret.

	2015	2016	2017	2018	2019	2020
Overall satisfaction	4.4	4.4	4.5	4.3	4.5	4.2
Relevance for working life	-	-	-	3.7	3.9	3.6
Work load (hours per week)	41.7	43.1	43.7	42.4	39.5	41.2

4.2 Grades and completion on time

To evaluate the relative study quality for different student groups, we compare their performance, with respect to completion on time and grades, in Table 9 and Table 10. Table 9 shows that the performance with respect to completion on time, i.e., within 4 semesters, have improved over time, and if we consider the classes that have started since 2015, between 84 % and 88 % of the students have completed on time. There are not large differences among students with NHH bachelor's degrees and other Norwegian bachelor's degrees. However, students with non-Norwegian bachelor's degrees have significantly lower probability of completing on time, between 66 % and 69 % for 2015-2018. There could be several reasons for this difference, but we do not have enough information to conclude anything. Diku did a survey[42] in 2019 among international students[43] in Norway. A majority of the respondents indicated that they found the academic workload to be acceptable. The international students devote slightly more time to their studies than Norwegian students, and they spend more time on independent study relative to organized learning activities. International students also devote slightly more time to paid work than Norwegian students. According to the Eurostudent survey[44] conducted by Statistics Norway, the median income from paid work per semester, for a student that is employed for the entire semester, is 12000 NOK for international students, compared to 10000 NOK for Norwegian students.

We do not see large differences in grades in Table 10, although grades for students with an NHH bachelor's degree tend to be slightly better than for students with a non-Norwegian bachelor's degree, which again have slightly better grades than students with other Norwegian bachelor's degrees.

[42] https://diku.no/rapporter/international-students-in-norway-contributors-to-quality-in-higher-education
[43] Students with a non-Norwegian citizenship, including both degree and exchange students.
[44] https://www.ssb.no/utdanning/artikler-og-publikasjoner/studenter-risikerer-a-miste-arbeidsinntekter

The grade averages in Table 10 hide considerable differences in grading practice between courses. We illustrate the differences with Table 11, which shows the grade distribution for 150 MScEBA courses in 2019.[45] We see that some courses use only the grades A and B, while some use all the grades A-E.

Table 9. Completion on time (within 4 semesters).

Year of admission to MScEBA	NHH bachelor		Other Norwegian bachelor		Non-Norwegian bachelor		Total	
	%	N	%	N	%	N	%	N
2010	75	291	76	179	44	57	72	527
2011	76	312	80	162	58	71	75	545
2012	72	283	71	215	40	75	68	573
2013	81	325	77	224	57	63	77	612
2014	83	356	85	243	60	40	83	639
2015	86	322	86	237	64	66	84	625
2016	83	322	88	197	82	68	84	587
2017	89	289	84	216	68	68	85	573
2018	89	305	94	192	70	69	88	566
Total	**82**	**2 805**	**82**	**1 865**	**60**	**577**	**80**	**5 247**

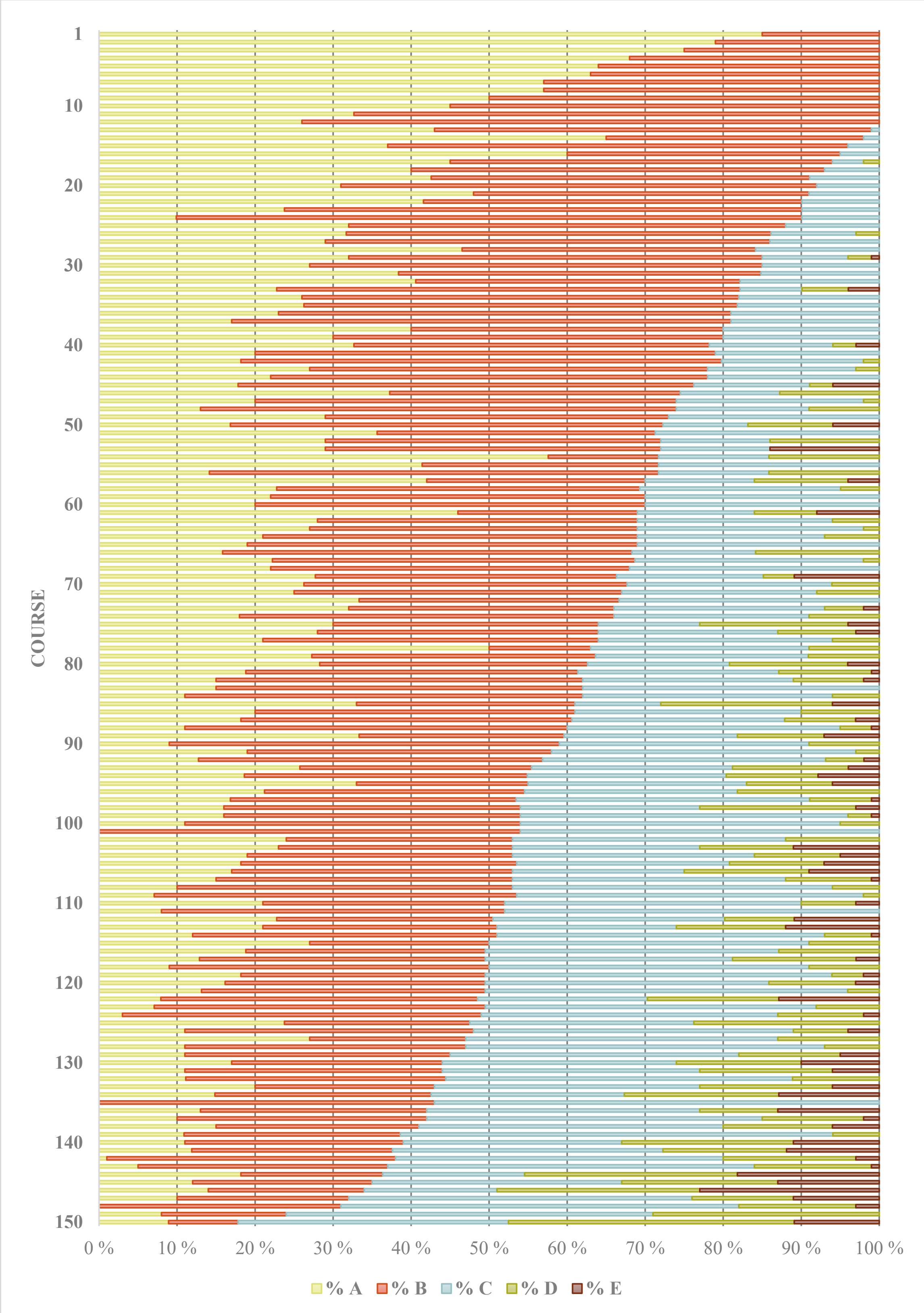
Table 10. Grades for different student groups in the MScEBA programme.

Year of admission to MScEBA	NHH bachelor		Other Norwegian bachelor		Non-Norwegian bachelor		Total	
	GPA	N	GPA	N	GPA	N	GPA	N
2010	4.1	291	3.9	179	4.0	57	4.0	527
2011	4.1	312	4.0	162	4.0	71	4.1	545
2012	4.1	283	3.9	215	3.9	75	4.0	573
2013	4.0	325	3.9	224	3.9	63	4.0	612
2014	4.1	356	3.9	243	4.0	40	4.0	639
2015	4.0	322	3.9	237	3.9	66	3.9	625
2016	4.1	322	4.0	197	4.0	68	4.1	587
2017	4.2	289	3.9	216	4.1	68	4.1	573
2018	4.2	305	4.0	192	4.1	69	4.2	566
Total	**4.1**	**2 805**	**3.9**	**1 865**	**4.0**	**577**	**4.0**	**5 247**

[45] We have excluded the master's thesis, courses with less than 5 students, as well as courses that use pass/fail.

Quality of Studies

Table 11. Grade distribution for individual MScEBA courses in 2019.



4.3 International mobility

NHH has more than 195 institutional partners around the world. In later years, more than 60 per cent of NHH students have had international experience during their degree. This is above the government's stated ambition of 50% and makes NHH number 1 in Norway when it comes to international mobility. Although we would like all students to have experience with internationalization, quantity is now less important than quality as our primary strategic goal.

Although NHH performs well relative to other Norwegian higher education institutions with respect to international mobility, internationalization is still one of the major challenges for the school. This was pointed out in the EQUIS peer review report when the school was reaccredited in 2021. The report specifically pointed out that the school is too local, not all programmes are taught in English, and the percentage of incoming international students is low. Following the decision of reaccreditation, the school decided to make internationalization one of its main development objectives for the next accreditation period. The school aims to intensify the efforts to internationalize its study programmes, while ensuring that students learn the national and regional context. An important premise for the steps ahead will be active participation in networks and alliances with outstanding business schools around the world to reinforce its network of international partner schools. Key priorities will include recruitment of strong international students, further development of the school's student exchange and Internship Abroad programs, and an overall strengthening of the course portfolio available to international students. The student and learning environment should be internationally diverse to strengthen the learning experience both for national and international students.

One of NHH`s strategic goals regarding developing quality in our study programs is to win competitions for external project funding in Erasmus + and national partnership programs. Since 2015 NHH has received funding for several projects on internationalization, such as Internship Abroad, Engage/European Universities, the Partnership Program for North America (Double Degree) and Innovation School. The award of large, strategically important projects such as Engage[46] and Innovation School[47] shows that the organization has given priority to working purposefully and long-term with development and innovation in internationalization. This will position NHH well for the future despite of the current restrictions on certain physical mobility caused by the corona pandemic.

Integration of incoming students is a particular challenge, and the experiences of international students and homecoming exchange students must be better utilized to enrich the study programmes at NHH and to motivate other students to travel abroad. Integration of international students has been a particular focus for NHH in 2021 as part of measures directed towards the effect of the COVID-19 pandemic on students. NHH has been in close dialogue with the International Committee and MEBA Council, representing exchange students and international degree master students, respectively, about how to integrate international students with Norwegian students, and has funded activities such as Cultural Exchange Matching. In October 2021 NHH hosted its first International Week in cooperation with the International Committee and MEBA. The activities were promoted by students from NHH and partner schools alike, who shared their experiences from exchange programmes, CEMS, Double degree and internship programmes.

The following options for international mobility are currently offered:

- Semester exchange
- Double degrees
- CEMS MIM

[46] https://www.nhh.no/en/for-students/international-opportunities/engage-online-exchange/
[47] https://www.nhh.no/en/for-students/international-opportunities/innovation-school/

- Internship Abroad
- Innovation School
- Erasmus+ traineeships for recent graduates
- European Universities - ENGAGE
- Summer course at the Nordic Centre at Fudan University

In the following we will comment in more detail on the various options.

Table 12. International mobility statistics.

	2015	2016	2017	2018	2019	2020
Semester exchange:						
- Incoming students	-	238	252	295	305	101
- Outgoing students	-	317	290	290	280	209
- Incoming relative to outgoing (%)	-	75 %	87 %	102 %	109 %	48 %
- Diplomas with exchange (%)	-	54 %	39 %	44 %	43 %	38 %
Double degree students (in and out)	20	28	26	32	40	31
Outgoing students on Erasmus+	-	137	155	140	134	108
International internships, CEMS, Norwegian School of Entrepreneurship and Innovation School	-	64	100	104	89	45[48]

Semester Exchange

The share of MScEBA diplomas with exchange is around 40 %, as seen from Table 12, but the share has varied considerable over time. The introduction of Innovation School[49] has provided an alternative to semester exchange, and may have contributed to a reduction in the volume of semester exchange. Most of the MScEBA students spend five years at NHH, and it should also be mentioned that a large share of the bachelor students also goes on exchange for one semester, facilitated by changes in the bachelor study plan from 2015. More than 50 % of the NHH students take one semester or more of their courses on exchange at a partner institution abroad during their five years at NHH. Since some students choose to go on exchange twice, i.e., both as bachelor and master students, it is not clear how the introduction of semester exchange in the bachelor programme has affected the volume of exchange in the master programme.

2020 was an exceptional year for international mobility programmes due to the COVID-19 pandemic. In March 2020, almost all the 209 master students abroad had to cancel their exchange and return to Norway, and most of the 101 incoming students to NHH went home. No inbound or outbound exchanges took place in the autumn semester of 2020. The effect of COVID-19 is reflected by the numbers in Table 12, where we see a decrease in all the international programmes for this year. However, most of the inbound and outbound exchange students in the spring semester 2020 completed their semesters digitally, which was a positive achievement.

The master courses taken while on exchange can be used as a minor and as free electives, and some students also get permission to include some courses taken abroad as part of their major. The exchange semester is typically the third or fourth semester, and Table 13 shows the proportion of autumn and spring semester exchanges by master students during the last 4 academic years. The majority of the

[48] Low number partly due to COVID-19, but also to the fact that the old Innovation School programme was ended in 2019, while the new programme (in Germany) starts in 2021.
[49] Innovation School was offered in partnership with UC Berkeley in 2017-2019, with 35-40 students per year. A revised programme, in partnership with the Technical University in Munich and the Goethe University in Frankfurt, was launched in 2021.

exchange students go abroad in the spring semester, i.e., typically the fourth semester of the programme, which means that they will write their master theses before they go abroad. Since the students' learning outcome from their master thesis work would benefit from the knowledge and skills acquired in the courses, this sequence is not optimal. It also often leads to extra work and complications in connection with the approval process at NHH, e.g., if the courses that the student intended to take at the exchange partner institution were not available. Students that plan their exchange in the spring semester are also much more prone to cancel their plans after the exchange has been approved, as can be seen from Table 14. A cancelled exchange means that the student and the staff at NHH and the partner institution have spent valuable time and resources planning for activities that ended up not taking place. Hence, there are good arguments for limiting exchange to take place in the third semester. The benefits of such a restriction, in terms of better academic progression and reduced costs for NHH and its partner institutions, must of course be weighed against the cost, in terms of reduced flexibility, for the students.

Table 13. Exchange semester for MScEBA students.

Academic year	Autumn	Spring
2013-2014	44 %	56 %
2014-2015	35 %	65 %
2015-2016	30 %	70 %
2016-2017	32 %	68 %

Table 14. Exchange cancellations for MScEBA students.

Academic year	Autumn	Spring
2013-2014	6 %	12 %
2014-2015	4 %	13 %
2015-2016	6 %	9 %
2016-2017	4 %	20 %

Section for International Relations has started a review of our partner portfolio, to align it with NHH`s and the government`s goals and strategies. The so-called Panorama countries, [50] and the stated goals and needs of the government and Norwegian business community will be important points of departure to make international student mobility relevant to the needs of future employers.

According to the 2015 Master programme evaluation, feedback from NHH students on exchange suggested that NHH performs well compared to our exchange partners, except for its teaching methods. To be on par with the best international business schools, NHH needs solid knowledge about our partners` study programs and teaching. NHH strives to partner up with some of the world`s best business schools. If we reach our goal of having a Triple Crown, this will open more possibilities to attract excellent partners. For instance, AACSB is particularly esteemed among North American universities.

The Double Degree Programme

NHH`s Double degree programme has since 2015 been restructured and developed with the ambition to fit NHH`s Strategy and goals. Our portfolio and agreements have been reviewed and updated accordingly, with new partners being added and some partnerships discontinued. In addition to strengthening the academic focus, we aim to develop Double Degrees that are mutual, compatible, and integrated to ensure that the degree is truly double. The proposed study plan(s) must ensure mutual recognition of courses from both institutions, and Double Degrees should preferably build on existing

[50] https://www.regjeringen.no/no/dokumenter/panorama/id2457714/

cooperation between academic staff. Finally, we aim to create unique degrees which are forward-looking and preferably contain elements of technology, data science, sustainability and other important competencies, in order for our students to stay attractive in the labour market- also internationally. NHH currently has eight Double degree partnerships; Bocconi University, HEC Paris, HEC Montreal (new), Ivey Business School, Louvain School of Management, Mannheim University, Nova School of Business and Economics, University of Queensland.

CEMS

The CEMS Master's in Management (CEMS MIM) programme is integrated in the MScEBA programme as a minor and can be combined with any of the majors. CEMS MIM is a one-year programme offered jointly by 34 CEMS partners around the world.[51] According to CEMS' vision, CEMS MIM "prepares responsible leaders contributing to a more open, sustainable and inclusive world". The CEMS students spend one of their CEMS semesters in their home school and the other one in one of the other CEMS schools. In addition, all CEMS students are required to have an eight-week international internship. At NHH we recruit approximately 50 CEMS students per year, and we welcome a similar number of incoming CEMS students from the other member schools.

CEMS MIM requires 60 ECTS of course work, plus mandatory seminars etc. While it formally counts as a minor at NHH, it includes all the elective courses for the students, in addition to some overlap with courses from their majors. As discussed in section 2.1, it has previously been considered to make CEMS MIM a major, but for various reasons, it was decided to continue with the present solution, thus enabling students to combine CEMS MIM with any of the majors at NHH.

Internships/Work experience

The CEMS MiM degree has always required an international internship, so NHH has been sending students abroad to gain work experience for many years. In 2017 the Working Group for Internships recommended a scheme for internships that applies to all bachelor and master students at NHH. Since the autumn of 2018 NHH has offered students the opportunity to complete an internship abroad. This may be done after completing a degree through Erasmus + (recent graduates) or as part of their degree. After a pilot phase which started with project support from DIKU (Now HK-Dir) in 2018 the credit-bearing course InternAbroad was adopted in 2020 as part of the ordinary course offering. As a result, NHH has seen an increase in the number of master's students who complete an internship abroad as part of the degree.

It should also be mentioned that the CEMS MiM degree has always included an obligatory international internship, so the idea of international internships is not new at NHH

In 2020 NHH was awarded NOK 5 million from DIKU to increase working life relevance in higher education to develop a new Innovation School in Germany. The programme started in 2021, with 30 students the first year. They achieved 30 credit points, for course work done at NHH, an 8 week internship with a German company, and for two weeks of course work in Germany at the Technical University in Munich and the Goethe University in Frankfurt.

As part of another DIKU project NHH will establish a double degree with the ENE profile at NHH and Global Supply Chain Management at HEC Montreal in 2021. Here, a compulsory internship will be integrated into the study plan. These programmes are important contributions to help NHH achieve its important strategic goals of working life relevance in the studies, accreditation, and quality enhancement in studies. The ENEINT course (2.5 ECTS) combines an internship in a

[51] See CEMS.ORG for details of the network, and https://www.nhh.no/en/about-nhh/international-networks/cems/ for information about CEMS at NHH.

company/organization operating within the areas relevant for the ENE profile with a report that relates academic theories to practice.

European Universities - ENGAGE
In July 2020, NHH was awarded status as a European University, as one of three Norwegian educational institutions. European Universities is an initiative from the European Commission to create a common identity and strengthen the competitiveness and quality and of European higher education. This status is awarded to networks of outstanding universities from programme countries under the EU`s education programme Erasmus+, after an open competition announced by the European Commission. NHH and its 6 partner universities are part of the network ENGAGE.EU; *The European University engaged in societal change.*

NHH believes that this alliance with excellent European business schools will significantly contribute to and improve the quality of NHH's study programmes.

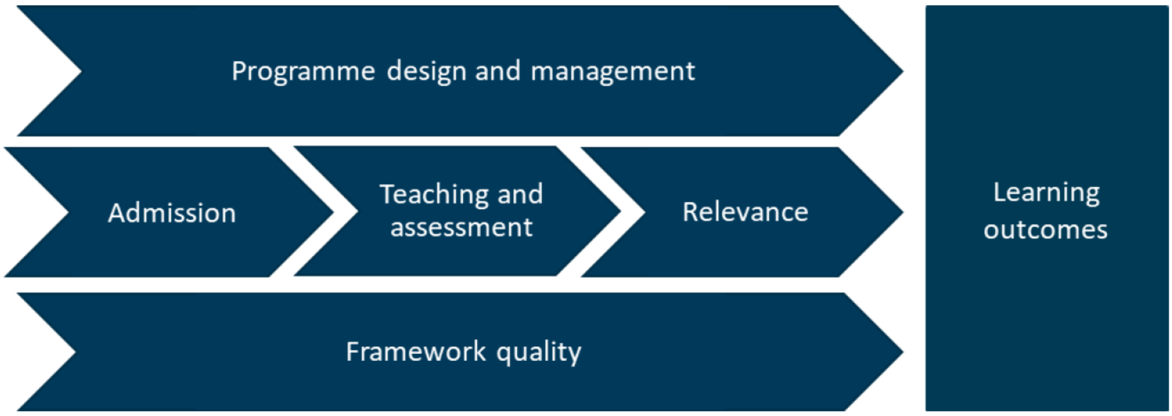
4.4 Quality assurance mechanisms

The quality assurance system at NHH is designed to help the school achieve its strategic goals related to education. The objective of the system is to ensure systematic quality enhancement and development in the school's educational activities, through:

- giving course coordinators, departments, programme managers and institutional leadership sufficient data to make good decisions concerning the school's educational activities
- identifying cases of failure to meet quality standards
- ensuring compliance with government regulations and national and international accreditations
- providing the school with a basis for internally generated evaluation and change that ensures continual improvement and development

Under the current quality assurance system quality in education is defined along six dimensions, which are monitored and evaluated in various ways at different intervals, shown in Figure 10.

Figure 10 Overview of the educational quality system dimensions.



The school redesigned the quality assurance system in connection with the change in leadership structure in 2017. The new unitary structure moved authority from the previous programme boards to programme managers with advisory reference groups as support. In connection with this, the mandates and authorities for the different roles (both individual and boards/committees) were revised. Under the new structure, the Vice Rector for Academic Affairs were given the responsibility for all the full-time programmes, and each programme has a programme manager that reports to the Vice Rector. The programme manager has a reference group, and for the MScEBA programme the reference group consists of the academic coordinators for the majors (profile coordinators) plus the CEMS academic director, as well as a student representative and a representative from the Office of Academic Affairs. The MScEBA reference group has regular meeting to discuss issues that concern all majors or the MScEBA programme as such. Each profile coordinators has a reference group. Prior to the reforms suggested by the MØA committee, the profile reference groups consisted of faculty members who were consulted on an ad hoc basis.

The quality assurance system describes the systematic processes through which courses, specialisations and programmes are designed, evaluated, and changed. The basic quality assurance cycle is central to all levels from course to programme level. Evaluation of the courses and programmes contributes to development and further improvement and forms the basis for a constructive dialogue between students and faculty on the nature and content of the courses and programmes. It is therefore fundamentally important that both good and bad aspects of course and programme quality are brought forward, from the perspective of both students and faculty.

The quality assurance work in the majors had previously been the joint responsibility of the respective profile coordinators and the programme manager. In effect, the academic departments had considerable control over "their" majors, and in cases where several departments had conflicting interests, e.g., regarding the introduction of new courses, it was not clear how the conflicts should be resolved. Students and external representatives were only involved in the MScEBA reference group, and only about issues that concerned the entire programme. To maintain the relevance and quality of the majors, and to control the number of courses, the MØA committee suggested to strengthen and formalize the role of the profile reference groups. They proposed the following:

a) The reference group for each major should (as previously) have faculty members from the academic departments that are involved in the major, in addition to the profile coordinator.
b) In addition, each reference group should have at least one external member. These external members at the profile level would replace the external member of the MScEBA reference group.
c) Each reference group should have at least one student representative.
d) The members of the reference groups should have an active role in the quality assurance work, including review of course evaluations in meetings with the programme manager.
e) At least annually the portfolio of courses in a major should be reviewed by the reference group, where need for new courses and/or removal of courses and/or need for quality improvements or modifications of existing courses should be discussed and recommended. The reference group would submit its recommendations to the programme manager, who will take the final decision on changes to the course portfolio.

To the extent that the proposals were commented in the hearing process, the reactions were positive, and the changes were implemented from the spring semester in 2020. The reference groups now meet at least once per semester. Some adjustments in other administrative processes had to be made to give the reference groups a meaningful role in the decision processes regarding the curriculum in the majors, e.g., by adjusting the deadlines for departments to propose courses and making sure that relevant information, e.g., course evaluations and course reports, are made available before the meetings.

4.5 Discussion questions

Q7) International students take considerably longer to complete their studies than Norwegian students. What can be done to improve this?

Q8) There are currently no restrictions on when the students can go on exchange, and a majority of the students choose to do this in their fourth semester, which means that they write their thesis in the third semester. An optimal academic progression would probably be to write the thesis at the end of the programme. Also, high cancellation rates for spring exchange and complications related to approvals upon the students' return imply that the current practice has significant costs for NHH and its partner institutions. On the other hand, the flexibility to choose the exchange semester freely has some value for the students. Should the current practice of allowing exchange in the fourth semester be continued?

5. GRADUATE QUALITY

NHH's strategic objective[1] with respect to the quality of our graduates is that they shall be preferred in the national market for economists and managers, attractive in the international labour market and qualified for the best international master's degree and PhD programmes.

5.1 Measures of graduate quality

The measures that we have available are from NHHs own labour market survey (Table 15) and NIFU's graduate survey (Table 16). Both surveys are done six months after graduation, and the NIFU survey is only done once every two years. The results from both surveys show that the MScEBA candidates easily find a job after graduation, and roughly 9 out of 10 graduates have found a job after six months. The NHH survey shows that most graduates choose to stay in Norway, with less than 1 out of 10 stating that they have found a job abroad.

The NHH survey asks the students to evaluate their programme. We see from Table 15 that the graduates are generally very satisfied with the quality of the programme, and they think that it has given them a relevant theoretical basis. They also think that the programme has made them competitive in the international labour market, although the scores here are slightly lower than for the other two criteria.

Table 15. NHHs labour market survey (MScEBA) (UA)[52]

	2015	2016	2017	2018	2019	2020
I was generally satisfied with the quality of the study programme	4.3	4.2	4.2	4.2	4.3	4.2
The programme has given me a relevant theoretical basis	4.5	4.5	4.3	4.3	4.4	4.4
The programme makes me competitive in the international labour market	4.1	4.1	3.8	3.9	4.0	4.0
Proportion in employment within six months[53]	90.0 %	86.7 %	88.1 %	92.1 %	89.7 %	92.6 %
Starting salary, NHH graduates (NOK 1,000)[54]	453	451	463	485	498	503
Proportion of students taking a job abroad[55]	8 %	8 %	5 %	11 %	7 %	6 %

Table 16. NIFUs graduate survey[56]

	2015	2016	2017	2018	2019	2020
Graduates employed in relevant work six months after graduation (KD)(UA)	89.0 %	-	88.9 %	-	96.6	-

[52] Figures from NHH's labour market survey. Scale of 1–5, where 5 is the highest score.
[53] Relevant and not relevant work.
[54] Average gross basic salary per year.
[55] The figure includes both relevant and non-relevant work.
[56] The survey is conducted by the Nordic Institute for Studies in Innovation, Research and Education (NIFU) every second year.

5.2 Relevance of the programme content

The content of the MSc EBA is continuously updated to keep it relevant and in line with the strategic objectives of NHH.

One of the megatrends affecting society is rapid technological change, and NHH has responded by launching new courses that give our candidates knowledge and skills related to technology. More than 80% of the MSc EBA students that graduated in 2019 had at least one course about programming and/or big data on their diploma, and this share had risen to 91% in 2020. A new major in Business Analytics (BAN) was launched in 2018, for students who would like to specialize further within this field. At the same time, a new major in New Business Development (NBD) was started. The Business Analytics major has become a popular choice, whereas New Business Development, although less popular as a major, has popular courses.

Sustainability is another strategic priority for NHH, and the MScEBA programme has a wide selection of courses that addresses various sustainability aspects: BUS446 Sustainable Business Models, FIE459 Sustainable Finance, BUS452 Corruption – Incentives, Disclosure and Liability, BUS465 Corporate Crime: Detection and Prevention, ECN421 Corporate Social Responsibility. All these courses have been launched from 2015 and onwards, and they all have in common that they qualify for the obligatory ethics requirement in the programme.[57]

5.3 Discussion questions

Q9) Rapid technological change, globalization, and increased focus on sustainability (environmental, social, and economical) are megatrends that are addressed in the current NHH strategy document.[1] Are these megatrends properly reflected in the curriculum of the MScEBA programme?

[57] https://www.nhh.no/en/study-programmes/msc-in-economics-and-business-administration/ethics2/

6. SUMMARY OF PANEL DISCUSSION

6.1 Introduction

The members of the evaluation panel were:

- Rolf Andreas Arnestad Gjevre (student representative)
- Janne Flovik Sande (BSc-NHH, MSc-CBS, presently working for Pierre Robert)
- Kari Due-Andresen (BSc-NHH, MSc-NHH, presently working for Akershus Eiendom)
- Patrick Narbel (BSc-Lausanne, MSc-NHH, PhD-NHH, presently working for Go Solr Ltd)
- Steef van de Velde (Rotterdam School of Management, absent due to illness on the day of the meeting)
- Endre Bjørndal (Programme Manager 2017-2021)
- Jan I. Haaland (Programme Manager 2021-)
- Kjetil Sudmann Larsen (Head of Section for Educational Quality)
- Kurt-Rune Bergset (Section for Educational Quality)

The panel met on Friday February 4th 2022, between 09:00 and 12:00 CET. The meeting was held digitally.

The panel members had read chapter 1-5 of the report in advance, and the discussion followed the structure in chapter 2-5. For each chapter, Endre Bjørndal (the former programme manager) gave a short introduction, and the panel then addressed the discussion questions for that chapter.

6.2 Programme content and structure

Q1) Does the programme have the right majors? If not, which majors should NHH consider adding? Should we discontinue some of the small majors?

The panel agreed that majors should be sustainable, in terms of student numbers, over time. It could therefore be necessary to discontinue some small majors and allocate the resources to other areas where they produce more value.

If the school, e.g., for strategic reasons, decides to keep majors that have exhibited low student numbers over some time, actions should be taken to improve those numbers. Such actions could include improved marketing towards the students, but fundamental changes in the curriculum and structure of the majors may also be necessary. The panel noted, specifically, that MBM (Marketing and Brand Management) has had very low student numbers over some time. The panel agreed that MBM needs a stronger focus on analytics and practical skills to become a more attractive choice for students. An interesting observation from the external panel members, and relevant for all the NHH majors, was that businesses typically are looking for candidates that combine strong analytical capabilities / skills with a good business understanding.

The importance of academic progression in the majors was also discussed here. The progression should ensure that students have the knowledge/skills/competences required by potential employers when they graduate. However, the relevant profile coordinator and the programme manager must also make sure that the progression in each major is realistic for the students, given the knowledge/skills/competences that they possess when they enter the programme.

Q2) The MScEBA programme at NHH has a rather flexible structure compared to most of our competitors. Moderate adjustments have been made to improve progression in the majors and make them more focused. Is this enough, or should the structure be tightened further?

The panel agreed that there is a trade-off between flexibility and quality. Flexibility allows the students to tailor their curriculum to their own interests and what they see as relevant for their future careers in a changing business environment, and this can contribute positively to the relevance and quality of the candidates.

However, the main takeaway from the discussion was that it is beneficial to restrict this flexibility in the majors even further, through more mandatory content and better progression, to ensure that the NHH candidates have the necessary skills and competences that they will need in their future careers. The external members of the panel mentioned, specifically, skills related to quantitative methods and ethics/sustainability. Although reduced flexibility may be perceived negatively by the students in the short run, more structure and better progression can contribute positively to the quality of the NHH candidates, and thereby, in the long run, to increased popularity of the MScEBA programme. The success of the Business Analytics (BAN) major was mentioned as evidence that students do not necessarily shy away from a major with strict structure if it is seen as necessary to produce candidates of high quality.

If, and how much, the structure of individual majors should be tightened, will vary. Most majors, except ENE and MBM, have already made changes following the report from the MØA committee. However, a continued evaluation of the structure and progression in all majors is necessary to ensure good quality of the NHH candidates.

Q3) The students must take 2.5 ECTS from a list of approved ethics courses, but this list is not major-specific. Should this requirement be strengthened, e.g., to 7.5 ECTS and by changing the name to "Ethics, responsibility, and sustainability"? Should it be linked more clearly to the respective majors, e.g., by requiring each major to offer at least one such course?

The panel discussion stressed the importance of sustainability for society and for individual businesses. All businesses will be required to have sustainable business models in the future, and training about sustainability issues must therefore be an obligatory element in the NHH master's programme. The panel agreed that the NHH requirement should be increased to 7.5 ECTS, and that the scope should be broadened from "ethics" to "ethics, responsibility, and sustainability". The external panel members pointed out that these courses must have a practical business focus, including how businesses can make money with a sustainable business model. To further strengthen the practical focus, the individual courses should be tailored to the respective majors that they belong to. This is already, to a certain degree, implemented in some of the "ethics" courses, such as Sustainable Business Models and Sustainable Finance.

Q4) The size of the courses varies a lot, e.g., in 2020 it year ranged from 2 to 439 students. What is an acceptable range for course size, and what can the school do to avoid extremely small or large courses?

The panel agreed that there are quality issues with very large courses as well as very small courses, and the school should try to avoid both extremes. Courses about very popular topics, such as programming, should be duplicated to increase the availability and quality for the students. The programme manager and the rectorate are currently working with the departments to facilitate this. Actions should also be taken for courses with very few students, either to make the courses more relevant, improve the marketing, or, if the problem persists, discontinue the courses.

6.3 Admission quality

Q5) NHH will continue to make internationalization a strategic priority, and this is one of the development objectives that the school has committed to after the EQUIS reaccreditation. What can be done to increase the share of international students in the programme even further?

It was noted here that, to have an informed discussion about this question, we first need more information about *drivers* for choosing NHH among potential applicants abroad. It is also important to be clear about *why* NHH should increase the share of international students.

NHH has a disadvantage in that Norway/Bergen is not well known, and the country is not associated with higher education like some larger countries like the UK, Germany, or the USA. To compensate for this disadvantage, the school could focus on direct recruitment and personally oriented marketing. Once international students are in Bergen, it is also vital to integrate them well with the Norwegian students, and this is an issue that the NHH management and the student association needs to work on together.

Perhaps the most important point in this discussion was that it will be better for a small school like NHH to focus on certain areas where Norway has advantages, rather than spreading its marketing efforts evenly over all areas. The success of the ENE major can be explained by the natural advantage that Norway has within the field of energy and natural resources. The present world-wide focus on oceans and the blue economy, an area where Norway is an important player, could be used to attract more international students to NHH.

One panel member commented that the names of the different NHH majors are not very distinctive. This could make it hard to attract international students that are looking for a master within "standard" business school areas such as finance, accounting, human resource management, operations, information systems, or sustainability.

Q6) Is the seemingly low admission quality of some majors (STR and MBM) a problem? If yes, what can we do make these majors more attractive for good students?

The question refers to Table 7 in this report. One might expect students to perform relatively better in bachelor subjects related to the master majors that they choose later. This has been investigated in more detail in a previous report[58], and the results showed that the STR and MBM students, on average, had lower bachelor grades, compared to students in other master majors, in all subject areas of the bachelor programme.

[58] Appendix A in *Structural improvements in the MScEBA (MØA) programme at NHH – evaluation and recommendations.* Report from the MScEBA programme manager (2019).

For MBM the low admission quality coincides with low student numbers, and the discussion under Question 1 already suggested measures to increase the popularity of MBM. On the other hand, STR is one of the more popular majors, so it seems like a paradox that the admission quality is low also here.

6.4 Quality of studies

Q7) International students take considerably longer to complete their studies than Norwegian students. What can be done to improve this?

There can be several reasons behind these numbers. We know anecdotally that some students, especially those from countries outside of Europe, may have reasons to deliberately extend their student rights, e.g., to take internships before they lose their work permit. However, this is not likely to be the only explanation, and to explore this issue further, NHH should try to find out more about these students and the reasons behind their delays.

The master programme at NHH differs considerably from many other master programmes in that the structure is more flexible, with considerable freedom to choose among a large set of master courses. The larger degree of freedom and responsibility, relative to what the foreign students are used to at schools in other countries, may come as a shock and take time to get used to. In Norway it is relatively easy to get help with academic or administrative issues if you ask for it, but foreign students may not be aware of the possibilities that exist.

The panel also discussed differences in admission quality as a possible reason for the differences in completion time. Applicants with international bachelor degrees face approximately the same grade point average requirements as applicants with Norwegian bachelor degrees, but the requirements with respect to the total amount of study points within economics and business administration, as well as within sub-areas, are less stringent. One suggestion was to tighten the admission requirements for this group of students to increase the admission quality and improve the students' ability to successfully complete their studies on time. This could, however, conflict with NHH's strategic goal to increase the share of international full-degree students in the master programme, in particular, since bachelor degrees in other countries normally do not reflect the composition of subjects required in the Norwegian BØA plan.

Q8) There are currently no restrictions on when the students can go on exchange, and a majority of the students choose to do this in their fourth semester, which means that they write their thesis in the third semester. An optimal academic progression would probably be to write the thesis at the end of the programme. Also, high cancellation rates for spring exchange and complications related to approvals upon the students' return imply that the current practice has significant costs for NHH and its partner institutions. On the other hand, the flexibility to choose the exchange semester freely has some value for the students. Should the current practice of allowing exchange in the fourth semester be continued?

The panel agreed that limiting exchange to the third semester would imply benefits, in terms of better academic progression and less problems related to cancellations and other complications. All panel members, except for the student representative, also agreed that the benefits would outweigh the costs. The student representative noted that flexibility is one of the things that make the NHH master unique, and that the flexibility to choose the exchange semester has positive value for the students. According to the panel majority, however, this flexibility is “nice to have” rather than “need to have”. Moreover, a stricter structure, if it increases the quality of the programme due to improved academic progression, will also contribute to increased attractiveness of the programme in the long run.

6.5 Graduate quality

Q9) Rapid technological change, globalization, and increased focus on sustainability (environmental, social, and economical) are megatrends that are addressed in the current NHH strategy document. Are these megatrends properly reflected in the curriculum of the MScEBA programme?

The discussion reiterated some issues that had been raised previously, especially under Question 2 (structure) and Question 3 (sustainability). A key point in the discussion was that megatrends, like sustainability, should be integrated in the various majors and their courses, to secure a practical and relevant focus.

With respect to technology, the discussion focused on the importance of producing candidates that understand both business and technology, not just one of them. The NHH candidates should primarily have a business focus, but they need to have sufficient technological knowledge and skills to communicate and cooperate with technology experts. To a certain extent NHH candidates will also have to master technological tools, e.g., programming languages. The level of this training is more important than the exact choice of tools, since deeper understanding makes it easier to transfer the knowledge to other technologies later.

ÅRSRAPPORT FOR 2021 FRA REDELIGHETSUTVALGET VED NHH OG SNF

Saksbehandler Bjarte Grønner
Arkivreferanse 21/01729-1

Utvalg	Møtedato	Utvalgsnr
Styret ved Norges Handelshøyskole	20.04.2022	22/22

Forslag til vedtak:
Styret tar årsrapporten for 2021 fra Redelighetsutvalget til orientering.

Bakgrunn:
Redelighetsutvalget ved NHH og SNF gir styret en årlig orientering om arbeidet i utvalget.

Ifølge lov om organisering av forskningsetisk arbeid (forskningsetikkloven) vedtatt i 2017, skal institusjonene i UH sektoren ha et Redelighetsutvalg. Loven har også bestemmelser med krav til sammensetningen av Redelighetsutvalget. Utvalget skal ha kompetanse i forskning, forskningsetikk og jus. Det er i tillegg et krav om at minst ett medlem ikke skal være ansatt ved institusjonen.

Redelighetsutvalget har mandat til å behandle saker som gjelder mistanke om brudd på anerkjente forskningsetiske normer.

Redelighetsutvalget har ikke fått slike saker til behandling i løpet av 2021.

Vedlegg: Årsrapport 2021 fra Redelighetsutvalget ved NHH og SNF

Sak 22/22 Vedlegg

Årsrapport 2021

Redelighetsutvalget ved NHH og SNF

1. Redelighetsutvalget – sammensetning og arbeidsmåte

Ifølge lov om organisering av forskningsetisk arbeid (forskningsetikkloven) vedtatt i 2017, skal institusjonene i UH sektoren ha et Redelighetsutvalg. Loven har også bestemmelser med krav til sammensetningen av Redelighetsutvalget. Utvalget skal ha kompetanse i forskning, forskningsetikk og jus. Det er i tillegg et krav om at minst ett medlem ikke skal være ansatt ved institusjonen.

I 2021 har Redelighetsutvalget ved NHH hatt følgende sammensetning:

Leder:

- Prorektor for forskning, professor Kenneth Fjell, NHH (01.01.2021 – 31.07.2021)
- Prorektor for forskning, førsteamanuensis Malin Arve (01.08.2021 –)

Medlemmer:

- Professor Nina Øyen, Institutt for global helse og samfunnsmedisin, UiB
- Professor Knut Ims, NHH
- Seniorforsker Margrethe Aanesen, SNF
- Personvernombud Monica Nielsen Øen, NHH (i påvente av jurist ny jurist ved FAA)

Sekretariatsfunksjonene blir ivaretatt av Forskningsadministrativ avdeling (FAA) og har i 2021 blitt utført av:

- Seniorrådgiver Bjarte Grønner

Redelighetsutvalget har følgende mandat:

- Utvalget skal behandle saker som gjelder mistanke om brudd på anerkjente forskningsetiske normer
- I tillegg fremkom det i oppstartsmøtet at utvalget også ønsker å arbeide med forebyggende tiltak mot uredelighet i forskning.

I 2021 har det vært avholdt ett møte i utvalget. Det har også vært avholdt et møte mellom leder for Redelighetsutvalget ved NHH og SNF og Granskingsutvalgets ledelse. (se punkt 3. under). I tillegg har et møte vært planlagt, men ikke gjennomført. Årsaken til dette var at det skulle arbeides videre med aktiviteter knyttet til opplæring i forskningsetikk ved NHH og SNF. Grunnet mangel på kapasitet har dette arbeidet blitt utsatt.

2. Behandling av enkeltsaker

Ifølge retningslinjene for behandling av saker om mulige brudd på anerkjente forskningsetiske normer ved NHH, skal dette skje proporsjonalt og i samsvar med god forvaltningsskikk. Med en proporsjonal tilnærming menes at sakene skal prøves løst på et lavest mulig nivå og at fremstillingen av saken skal tilpasses alvoret i meldingen. NHH og SNF skal sikre partenes rett til motsvar (kontradiksjon) i alle sakens ledd. Instituttene ved NHH og SNF skal rapportere til Redelighetsutvalget om saker som avsluttes lokalt ved disse enhetene.

Redelighetsutvalget har ikke fått saker til behandling i løpet av 2021.

Andre saker:

3. Møte med Granskningsutvalget for avklaring om utfordringene knyttet til retningslinjenes § 1 og UHL § 4-13. Graden philosophiae doctor.

Møtet ble avholdt 16.04.2021. Til stede på dette møtet var Kenneth Fjell, Monica Nielsen Øen og Bjarte Grønner fra NHH. Fra Granskningsutvalget møtte Ragna Aarli og Annette Birkeland henholdsvis leder og sekretariatsleder.

Hovedproblemstillingen var om man i fuskesaker som gjelder ph.d. må velge mellom annullering av eksamen eller et uredelighetsløp. Dialogen i møtet indikerte et større handlingsrom hvor institusjonen har stor beslutningsmyndighet i forhold til terminering av ph.d. avtaler. Dette synes også å være i tråd med vurderinger i Aune-utvalget. Ved enklere saker kan det være fornuftig å velge annullering, mens det i tyngre saker kan vurderes uredelighetssak. I slike tilfeller må saken til Redelighetsutvalget. Klageinstans i et slikt tilfelle vil være Kunnskapsdepartementet hvor Granskningsutvalget vil gjøre selve uredelighetsvurderingen.

Terskelen for uredelighet ved plagiering ligger på rundt 30 – 40 prosent plagiat. Plagiering ut over denne grensen regnes vanligvis for uredelighet.

Videre kan møtet med Redelighetsutvalget sammenfattes som følger:

4-13 første ledd gjelder hele doktorgradsutdanningen (ikke bare avhandlingen, men også eksamener/prøver som i tredjeledd)

Uredelighet kumuleres/akkumuleres, slik at gjentatte/påfølgende fusksaker etter tredje ledd kan sees under ett. Kun fusk/uredelighet på enkelteksamen behandles etter 3. ledd. Flere tilfeller av uredelighet på eksamen (f.eks. plagiat, dvs. hvor meget store deler av innholdet er plagiert), kunne utgjøre grunnlag for tvungen avslutning – også da etter første og/eller andre ledd; dvs. kumulering skjer etter 1. (eller andre ledd). Plagiat i avhandlingen er relevant når arbeidet er innlevert for bedømmelse, men kan også være relevant på tidligere tidspunkt, når andre enn veiledningskomiteen får tilgang til arbeidet (f.eks. deler sendes inn til konferanse, internt seminar eller lignende). Det ble henvist til Aune-Utvalget (jf. revidering av UH-loven) om at annullering av eksamen i slike tilfeller burde skje samtidig med tvungen avslutning. En forståelse av dette er at man først ferdigbehandler fusk på eksamen etter § 4-7 og straks der foreligger et rettskraftig vedtak om fusk og annullering, så sendes fusksakene/det akkumulerte grunnlaget samlet til Redelighetsutvalget for en uredelighetsvurdering/tvungen avslutning. Det var også av betydning at eksamenene samlet var av et visst omfang. Imidlertid må man kunne forvente en høyere standard av ph.d. studenter enn studenter på bachelor og master.

Oppsummert:

1) UHL 4-13, 3. ledd skal tolkes som både/og, dvs. kan leses som: Ved fusk på eksamen eller prøver underveis i doktorgradsutdanningen kan institusjonen vurdere om disse skal annulleres etter § 4-7 første ledd, og om forholdet er så alvorlig at det også gir grunnlag for tvungen avslutning etter første og annet ledd.
2) To (eller flere) påfølgende tilfeller av plagiat på eksamener kan/bør også samlet vurderes som uredelighet samtidig som siste tilfelle er rettskraftig.

Videre ble det understreket at det er viktig at ph.d. studenter får informasjon om fusk / uredelighet og de mulige konsekvensene av dette tidlig gjerne allerede fra introduksjonsmøtet. Et vesentlig element er at veiledere får nødvendig opplæring.

UTKAST TIL NY UTVIKLINGSAVTALE MED KUNNSKAPSDEPARTEMENTET FOR 2023-2026

Saksbehandler Randi Holmås
Arkivreferanse 22/01499-1

Utvalg	Møtedato	Utvalgsnr
Styret ved Norges Handelshøyskole	20.04.2022	23/22

Forslag til vedtak:

Styret slutter seg til det foreløpige utkastet til ny utviklingsavtale med Kunnskapsdepartementet for 2023-2026.

Styret gir rektor i samråd med styreleder fullmakt til å ferdigstille utkastet til ny utviklingsavtale i tråd med innspillene og føringene fra styrebehandlingen.

Bakgrunn:
NHH skal inngå ny utviklingsavtale med Kunnskapsdepartementet (KD) for perioden 2023-2026, og frist for første utkast er satt til 20. mai. Rektor og direktør for organisasjon og virksomhetsstyring deltok 17. mars på et digitalt fellesmøte om utviklingsavtaler i regi av KD, og sammen med styreleder skal de delta på et felles dialogmøte i Oslo om innholdet i avtalene den 20. juni. NHH vil motta en tilbakemelding fra KD på det innsendte utkastet, og dette vil danne grunnlaget for arbeidet frem mot den ferdigstilte utviklingsplanen. Som det blir gjort nærmere rede for nedenfor, vil utformingen av den nye utviklingsavtalen i stor grad speile NHHs nye strategi for 2022-2025.

Formålet med utviklingsavtalen er å bidra til høy kvalitet og en mangfoldig sektor gjennom tydelige institusjonsprofiler og god arbeidsdeling (jf. vedlegg 1). Avtalen skal blant annet legge til rette for at NHH kan ivareta sitt samfunnsoppdrag og svare på nasjonale, regionale og lokale behov. Utviklingsavtalene skal bygge opp under KDs tre overordnede sektormål:

1. Høy kvalitet i utdanning og forskning
2. Bærekraftig samfunnsutvikling, velferd og innovasjon
3. God tilgang til utdanning, forskning og kompetanse i hele landet

Dette harmonerer med NHHs strategi 2022-2025 hvor det i avsnittet for formål og visjon fremheves at:

> *«NHH har et betydelig samfunnsansvar. NHHs utdanningsprogrammer, forskning og formidling skal bidra til myndighetenes sektormål slik som kvalitet og tilgang på utdanning, kompetanse og forskning samt realiseringen av en bærekraftig*

samfunnsutvikling, velferd og innovasjon. Våre nasjonale og internasjonale ambisjoner skal være avstemte og gjensidig forsterkende.»

NHHs utgående utviklingsavtale gjelder fra 2019-2022 (jf. vedlegg 2). Utviklingsavtalen adresseres i de årlige tildelingsbrevene fra KD (jf. orienteringssak 1/22), og NHH omtaler status for oppfølging av utviklingsavtalene i årsrapporten hvert år.

Utviklingsavtalen skal være et strategisk viktig verktøy for både NHH og for KD. Avtalen skal ha differensierte mål og styringsparametere som beskriver styrets og NHHs strategiske prioriteringer for å bidra til å nå de overordnede nasjonale målene for universitets- og høyskolesektoren.

Utviklingsavtalen skal ha både et strategisk og flerårig utviklingsperspektiv, og KD legger nå opp til at utviklingsavtalen vil ha en svært sentral plass i den løpende etatsstyringsdialogen. Det er også grunn til å merke seg anbefalingen fra Hatlen-utvalget om å knytte til finansiering til utviklingsavtalene.

KD ber om at antall mål og styringsparametere begrenses til 2-5 mål med omtrent 12 styringsparametere totalt. Det presiseres at målene skal være overordnede, knyttet til ønskede effekter samt uttrykke ambisjon og retning. KD påpeker også at «en styringsparameter kan være det samme som en indikator, men ofte blir den gitt et litt bredere innhold enn hva en enkelt-indikator kan ha». En kan således benytte flere kvantitative indikatorer og kvalitative data for å understøtte en styringsparameter.

På bakgrunn av KDs føringer for utviklingsavtaler anser en at NHHs utviklingsavtale relateres sterkt til NHHs strategi 2022-2025, har bredt anlagte mål av relativt overordnet karakter og innrettes mot kjerneaktivitetene. I det følgende utkastet presenteres **tre mål** med til sammen **elleve styringsparametere**. Format og formuleringer samsvarer med strategien. Det skisseres videre tilhørende kvantitative og kvalitative indikatorer.

Forslag til mål og styringsparametere

Mål 1 – Utdanning: NHH skal utdanne attraktive kandidater til arbeidsmarkedet nasjonalt og internasjonalt, med kompetanse og holdninger som bidrar til og setter retning for bærekraftig verdiskapning.

Styringsparametere og indikatorer til mål 1:

1.1. Høy inntakskvalitet: NHH skal være det foretrukne økonomistudiet i Norge og rekruttere blant de beste studentene i Norge og internasjonalt.

Kvantitative indikatorer: Søknadsvolum og inntakskrav

1.2. Mangfold: NHHs studentmasse skal preges av engasjement og mangfold

Kvantitative indikatorer: Andeler basert på kjønn, nasjonalitet og etnisitet
Kvalitative indikatorer: Faglig og sosial aktivitet i studentmassen

1.3. Fagutvikling: Både fulltids- og etter- og videreutdanningsprogrammene skal reflektere vår eksistenserklæring (*mission*), «Sammen for bærekraftig verdiskaping», samt en videre satsing på digitalisering og teknologi. Omfanget av studentutveksling og studierelaterte utenlandsopphold skal være høyt.

Kvantitative indikatorer: Antall emner med henholdsvis teknologi og bærekraftsinnhold, andel kandidater med studentutveksling og relevante utenlandsopphold for øvrig
Kvalitative indikatorer: Utvikling av nye studietilbud

1.4. Læringsmiljø og pedagogikk: Satsingen på mer studentaktive læringsformer skal videreføres og forsterkes

Kvalitative og kvantitative indikatorer: Utviklingen i ulike pedagogiske satsinger mot mer studentaktive læringsformer, relevante data fra Studiebarometeret

1.5. Arbeidslivsrelevans: NHH skal utdanne kandidater som er høyt etterspurte i arbeidsmarkedet nasjonalt og internasjonalt

Kvantitative indikatorer for sysselsetting nasjonalt og internasjonalt etter gjennomført studium

Mål 2 – Forskning: NHH skal være en forskningsintensiv handelshøyskole med bidrag på høyt internasjonalt nivå på alle områder som er sentrale for en internasjonal handelshøyskole.

Styringsparametere og indikatorer til mål 2:

2.1. Publisering: NHH skal øke den samlede publikasjonsaktiviteten og opprettholde et høyt nivå på omfanget av internasjonale topp-publikasjoner

Kvantitative indikatorer: Publikasjonspoeng, publikasjoner på nivå 2 og på det internasjonale toppnivået (ABS 3, 4, 4* samt eventuelt andre tilsvarende rangeringer av relevans for NHH)

2.2. Omfang av eksternfinansierte forskningsprosjekter fra EU og NFR

Kvantitativ indikator: Inntekt fra eksternfinansiering fra EU og NFR

2.3. Ph.d. utdanningen ved NHH skal holde høy internasjonal kvalitet

Kvantitative indikatorer: Data for antall ph.d. kandidater og deres gjennomføring
Kvalitative indikatorer: Karriereutfall (*placement*) for ph.d. kandidatene

Mål 3 – Samspill med nærings- og samfunnsliv: NHH skal styrke formidlingen av forskningsbasert kunnskap og interaksjonen med næringsliv og samfunnsinstitusjoner. Alumninettverket skal videreutvikles og styrkes ytterligere.

Styringsparametere og indikatorer til mål 3:

3.1. Styrke samarbeidet med relevante aktører i nærings- og samfunnsliv, herunder videreutvikle faglige møteplasser for å stimulere til kunnskapsutveksling.

Kvantitative og kvalitative indikatorer: Antall og typer avtaler, partnerskap og møteplasser

3.2. Styrke alumninettverket som et viktig bindeledd mellom NHH og nærings- og samfunnsliv.

Kvantitative og kvalitative indikatorer: Antall alumnimedlemmer, antall og type arrangementer og initiativ

3.3. Opprettholde et høyt nivå på i) formidlingsaktivitetene for å bidra med kunnskapsbasert innsikt i samfunnsdebatten og for utviklingen i nærings- og samfunnslivet, og ii) NHH-deltagelsen i relevante offentlige ekspertutvalg, styrer og råd.

Kvantitative og kvalitative indikatorer: Antall aktive formidlere og deres faglige bredde, antall og type deltagelse i ekspertutvalg, styrer og råd

Vedlegg:

1. Kunnskapsdepartementets rammeverk for utviklingsavtaler for statlige universiteter og høyskoler
2. NHHs utgående utviklingsavtale (2019-2022)

Sak 23/22 Vedlegg 1

Kunnskapsdepartementet

Rammeverk for utviklingsavtaler for statlige universiteter og høyskoler

Rammeverk for utviklingsavtaler for statlige universiteter og høyskoler

Innhold

1. Retningslinjer for utviklingsavtalene

a) Utviklingsavtalenes formål og plassering i styringssystemet

Formål
Utviklingsavtalene har som formål å bidra til høy kvalitet og en mangfoldig sektor gjennom tydelige institusjonsprofiler og god arbeidsdeling. Mer differensiert styring gjennom utviklingsavtalene skal tilrettelegge for at institusjonene kan ivareta sitt samfunnsoppdrag og svare på nasjonale, regionale og lokale behov. Utviklingsavtalene skal bidra til økt åpenhet om myndighetenes og styrenes omforente forventninger til institusjonens utvikling.

Utviklingsavtalenes plassering i styringssystemet
Universitets- og høyskoleloven (UH-loven): UH-loven beskriver formålet med universiteter og høyskoler.

Langtidsplanen for forskning og høyere utdanning (LTP): Regjeringen fastsetter mål og langsiktige prioriteringer i LTP som angir retning for de samlede investeringene i planperioden uavhengig av sektor.

Sektormål: Kunnskapsdepartementet setter nasjonale mål for universitets- og høyskolesektoren (UH-sektoren) i Prop. 1 S under budsjettkapittel 260 Universiteter og høyskoler. Målene gjelder for de statlige universitetene og høyskolene og private høyskoler som mottar statstilskudd. Sektormålene er overordnede og dekker bredden av forventede resultater i UH-sektoren samlet sett, og vil som hovedregel ligge fast over flere år. Sektormålene beskriver det samlede samfunnsoppdraget til UH-institusjonene, og fungerer som ramme for departementets rapportering til Stortinget og for institusjonenes helhetlige virksomhetsstyring.

Utviklingsavtalene: Departementet inngår utviklingsavtaler med de statlige universitetene og høyskolene. Utviklingsavtalene inneholder differensierte mål og styringsparametere som beskriver den enkelte institusjonens strategiske prioriteringer for å bidra til at de nasjonale sektormålene nås. Utviklingsavtalen er et verktøy i styringsdialogen, og skal bidra til å utvikle institusjonene og sektoren.

Begrepet "utviklingsavtaler" reflekterer både et strategisk og flerårig utviklingsperspektiv, og at målene avtales mellom departementet og institusjonen(e).

Sektormålene og målene i utviklingsavtalen utgjør målene fastsatt av departementet i henhold til Reglement om økonomistyring i staten § 7. Målene inngår dermed i tildelingsbrevene til universiteter og høyskoler. Ifølge § 4 i samme reglement og UH-lovens § 9-2, skal styret fastsette mål og resultatkrav for virksomheten. Institusjonens styre må derfor vurdere i hvor stor grad utviklingsavtalen dekker behovet for mål for virksomheten og eventuelt fastsette ytterligere mål og resultatkrav.

Sektormål
Kunnskapsdepartementet har revidert målene på budsjettkapittel 260 Universiteter og høyskoler, og legger til grunn at følgende mål vil gjelde fra statsbudsjettet for 2023:

1. Høy kvalitet i utdanning og forskning
2. Bærekraftig samfunnsutvikling, velferd og innovasjon
3. God tilgang til utdanning, forskning og kompetanse i hele landet

b) Hva slags mål og parametere avtalene skal inneholde

Hvilke områder målene bør dekke
Utviklingsavtalene skal være et viktig strategisk verktøy både for institusjonene og for departementet. Institusjonene skal ha mål og styringsparametere på vesentlige områder med behov for strategisk utvikling eller endring, eller på områder som er strategisk viktige og som krever mye innsats. Derfor vil utviklingsmålene ikke nødvendigvis dekke hele bredden av institusjonens virksomhet.

Målene skal følge opp sektormålene og prioriteringene i langtidsplanen og samtidig reflektere styrets prioriteringer for utvikling av institusjonen. Kunnskapsdepartementet forventer at institusjonene selv, og i samarbeid med relevante aktører, konkretiserer tiltak og følger opp strategier og stortingsmeldinger fra regjeringen gjennom sine strategier og sitt utviklingsarbeid. Det vil imidlertid variere i hvor stor grad hver enkelt institusjon skal følge opp de enkelte tiltakene, og hva som dermed bør inngå i utviklingsavtalen til den enkelte institusjonen.

Målene i utviklingsavtalene skal gjelde den enkelte institusjonen. Det er også mulig for institusjonene å foreslå mål som kan gjelde for flere institusjoner der disse institusjonene ser behov for en samordnet innsats. Dette kan være institusjoner for eksempel i samme region, som har utdanningstilbud på samme fagområde eller som på annen måte har samme rolle eller funksjon. For eksempel kan dette gjelde regional samhandling. I tilfeller hvor flere institusjoner går sammen om fellesmål for samarbeid, må målet/målene være omtalt i avtalene til alle involverte institusjoner.

Hvilket nivå målene bør ligge på

Målene bør vise ønsket tilstand eller resultat på områder som institusjonen har en reell mulighet til å påvirke. Målene bør være overordnede og knyttet til ønskede effekter. Målene gir institusjonene anledning til å fremheve områder de ønsker dialog med departementet om i etatsstyringen. Innretningen av målene kan variere noe fra institusjon til institusjon, avhengig av egenarten og utviklingsbehovet for hver enkelt institusjon.

Departementet oppfordrer institusjonene til å se hen til DFØs veiledning i mål- og resultatstyring[1], styringsinformasjon[2] og samordning[3].

Mål og parametere

Målene og parameterne skal uttrykke ambisjon og retning, fremfor spesifikke måltall. Avtalene skal kunne fremheve kvalitative aspekter som ikke enkelt lar seg måle kvantitativt. Målene og styringsparameterne bør belyses gjennom både kvantitative og kvalitative data. Dette for å unngå indikatorstyring istedenfor målstyring.

Institusjonene kan gjerne bruke eksisterende parametere og data de allerede rapporterer på. De kan også utvikle egne parametere dersom eksisterende parametere ikke er dekkende.

Antall mål og parametere bør ikke være for mange for å kunne være et godt verktøy for strategisk styring. Det bør være 2-5 mål (ikke delmål) og omtrent 12 styringsparametere totalt. Det er ikke krav om en-til-en forhold mellom sektormål og utviklingsmål, dvs. de institusjonsvise målene kan bidra til flere av sektormålene, og flere institusjonsmål kan bidra til ett sektormål. Se vedlagte mal for utviklingsavtalen.

Styringsparameter vs. indikator:
"En styringsparameter kan være det samme som en indikator, men ofte blir den gitt et litt bredere innhold enn hva en enkelt-indikator kan ha"[2]. For eksempel kan en styringsparameter være "gjennomføring", og man kan bruke flere kvantitative enkeltindikatorer og kvalitative data for å belyse gjennomføringen.

[1] Hva er mål- og resultatstyring? - DFØ (dfo.no)
[2] 5 steg på veien til god styringsinformasjon - DFØ (dfo.no)
[3] Samordning - DFØ (dfo.no)

c) Hvordan avtalene blir til og avtaleperiode

Utviklingsavtalene utarbeides gjennom en transparent og forutsigbar dialog mellom departementet og hver enkelt institusjon. Overordnet blir prosessen som følger:

Bestilling fra departementet i tildelingsbrevene til universitetene og høyskolene om forslag til avtale.	Institusjonene kommer med forslag til avtale.	Dialog mellom departementet og institusjonene om innhold, før avtalene fastsettes endelig i tildelingsbrevene for året etter.

Departementet legger opp til ulike typer møter i løpet av prosessen. Dette inkluderer fellesmøter. Hensikten er å orientere om formål, rammer og prosess, gi rom for spørsmål og ha en felles dialog om innholdet i avtalene på tvers av institusjonene, for å lære av hverandre og dele erfaringer og synspunkter. Departementet legger også opp til fellesmøte i midten av avtaleperioden som del av samarbeidet om utviklingen i sektoren.

Institusjonene skal ha stor frihet til å formulere mål med tilhørende parametere. Når utviklingsavtalene blir en helt sentral del av styringen av institusjonene, forventer Kunnskapsdepartementet at institusjonene har en åpen prosess internt med medvirkning fra ansatte og studenter, og at utviklingsavtalen er forankret i styret for institusjonen.

Kunnskapsdepartementet vil ha en koordinerende og styrende rolle i prosessen for at avtalene samlet bidrar til en mangfoldig sektor, god arbeidsdeling og at de overordnede målene for sektoren nås. Det innebærer å legge til rette for deling av informasjon og erfaring og bidra til felles forståelse av utfordringer. I tillegg er departementet opptatt av å unngå at mål for en institusjon går på bekostning av andre samt å bidra til at avtalene kan inneholde mål om synergier, for eksempel at to eller flere institusjoner koordinerer samarbeid eller arbeidsdeling seg imellom[4].

Forslagene til mål skal begrunnes ut fra institusjonens strategiske fortrinn, utviklingspotensial og utviklingsbehov fremover, og ut fra samfunnets behov for en god utvikling av sektoren regionalt, nasjonalt og internasjonalt. Departementet vil kunne komme med forslag til mål eller endringer i målene som institusjonene foreslår. Dette vil skje tidlig i prosessen, slik at institusjonene kan inkludere forslagene i diskusjonene internt på institusjonen, før endelig forslag skal leveres. Utviklingsavtalene fastsettes endelig av departementet i tildelingsbrevet for kommende år.

Utviklingsavtalene reforhandles i utgangspunktet hvert fjerde år, men departementet åpner for eventuell revisjon av avtalene etter to år ved særlig behov, for eksempel at institusjonen har arbeidet med ny virksomhetsstrategi.

[4] Samordning - DFØ (dfo.no)

2. Oppfølging av avtalene i den årlige etatsstyringen

a) Tildelingsbrev og rapporteringskrav

Sektormålene og de institusjonsvise målene og styringsparametrene i utviklingsavtalene utgjør kapittel 2 i de årlige tildelingsbrevene.

Det er et krav til alle underliggende statlige virksomheter å utarbeide og publisere en årsrapport, jf. økonomiregelverket. For årsrapporten stiller departementet krav om rapportering på sektormålene og utviklingsavtalene. Årsrapporten kan dermed tilpasses institusjonenes profiler og forutsetninger. Årsrapporten skal gi departementet relevant og vesentlig styringsinformasjon. Departementet stiller nærmere krav til årsrapportens innhold i vedlegg til tildelingsbrevet. Generelt skal styringsinformasjon ivareta behovet for kontroll (etterlevelse), læring og utvikling.

Institusjonene skal rapportere om oppfølgingen av målene i utviklingsavtalen og overordnet om hvordan institusjonen bidrar til sektormålene, hvert år i årsrapportens del III. Rapporteringen skal ta hensyn til både ettårig og flerårig perspektiv. Rapporteringen på sektormålene skal være overordnet og kan utgjøre ca. to sider totalt. Utviklingsavtalen skal utgjøre hoveddelen av rapportens del III. Det skal framgå hva som er utviklingen på styringsparametere i utviklingsavtalen sammenlignet med utgangspunktet for avtalen. Departementet forventer en samlet analyse av styringsinformasjon som overordnet belyser måloppnåelse for utviklingsavtalen og institusjonens bidrag til oppnåelsen av sektormålene generelt. Institusjonene kan selv velge hvilken informasjon de vil bruke i analysen.

b) Etatsstyringsmøte og tilbakemelding

Etatsstyringsmøtene er en arena for strategisk dialog som tar utgangspunkt i tildelingsbrevene og institusjonenes årsrapporter. Møtene vil i stor grad dreie seg om utviklingsavtalen og et utvalg prioriterte saker med høy viktighet for både regjeringen og den enkelte institusjon.

Departementet vil uavhengig av utviklingsavtalen gjøre risikovurderinger av institusjonene med utgangspunkt i tilgjengelig statistikk og evalueringer. Ved behov vil departementet ta opp sine vurderinger i etatsstyringsmøtet og den skriftlige tilbakemeldingen.

Departementet gir årlig en skriftlig tilbakemelding til hver enkelt institusjon om institusjonens resultater, risikoområder og måloppnåelse i tråd med prinsippet om differensiert styring.

c) Kunnskapsgrunnlag og styringsinformasjon

God styring er avhengig av god informasjon. Dialogen om innholdet i og oppfølgingen av utviklingsavtalene skal støttes av offentlig tilgjengelig kunnskapsgrunnlag (strategier, analyser, evalueringer, statistikk mv.), for eksempel tilstandsrapporten for høyere utdanning og årsrapportene til institusjonene. Kunnskapsdepartementet legger også til rette for bedre koordinering og informasjonsutveksling mellom departementene.

Vedlegg: Utviklingsavtale – mal

(teksten vil inngå i tildelingsbrevets del 2 Mål)

2. Mål

2.1 Sektormål og utviklingsavtaler

For 2023 gjelder følgende overordnede og langsiktige sektormål for universiteter og høyskoler:

1. *mål*
2. *mål*
3. *mål*

Målene og styringsparameterne i utviklingsavtalene beskriver den enkelte institusjonens strategiske prioriteringer for å bidra til at de nasjonale sektormålene og prioriteringene i langtidsplanen nås. Utviklingsavtalen er et verktøy i styringsdialogen, og skal bidra til å utvikle institusjonene og sektoren.

Utviklingsavtalene har som formål å bidra til høy kvalitet og en mangfoldig sektor gjennom tydelige institusjonsprofiler og god arbeidsdeling. Differensiert styring gjennom utviklingsavtalene skal tilrettelegge for at institusjonene kan ivareta sitt samfunnsoppdrag og svare på nasjonale, regionale og lokale behov.

Utviklingsavtalene er fastsatt i samhandling med den enkelte institusjon i tråd med rammeverket for utviklingsavtalene. Utviklingsavtalene reforhandles i utgangspunktet hvert fjerde år, men departementet åpner for eventuell revisjon av avtalene etter to år ved særlige behov.

2.2 Utviklingsavtale for <universitetet/høyskolen> 2023 – 2026

Målformulering 1
Kort tekst med beskrivelse av målet
Redegjørelse for styringsparametere og eventuelt annen styringsinformasjon

Målformulering 2
Osv.

Utviklingsavtalen skal vise institusjonens veivalg og satsinger som skal svare ut den mer generelle og felles formålsteksten over. Formulert som – **"institusjonen vil i perioden"** Målene skal være på nivået for departementets styring. Målene skal i utgangspunktet vare for en periode på fire år, men kan også være mer langsiktige. Antall mål og styringsparametere bør ikke være for mange. Omtrent 2-5 mål (ikke delmål) og 12 styringsparametere totalt (dvs. 1-6 per mål). Avtalen kan totalt være inntil 3 sider.

NHH

Kunnskapsdepartementet
Postboks 8119 Dep
0032 OSLO

Vår referanse	Vår dato
18/00747-6	12.11.2018
Deres referanse	Deres dato

Utviklingsavtale - Norges Handelshøyskole

(revidert etter tilbakemelding fra KD 8. november 2018)

Som handelshøyskole dekker Norges handelshøyskole (NHH) et bredt felt av fagområder i undervisning og forskning, i stor grad knyttet til beslutningstaking i nærings- og samfunnsliv. Dette gjenspeiles også i NHHs forskning og forskningsbaserte undervisning. Målene i utviklingsavtalen skal bidra til å styrke NHHs posisjon og særtrekk som en internasjonalt anerkjent handelshøyskole med et sterkt kvalitetsfokus og et omfattende samspill med næringsliv og samfunnsinstitusjoner, jf. NHHs visjon: «NHH skal være en drivkraft for samfunns- og næringsutvikling og utdanne mennesker for verdiskaping og bærekraftig utvikling. NHH skal være en ledende internasjonal handelshøyskole som viser vei i utvikling og formidling av kunnskap og kompetanse». På basis av dette foreslås tre mål i NHHs utviklingsavtale. Disse har alle en nær sammenheng med de utvalgte satsingsområdene i NHHs strategi 2018-2021, og er områder hvor NHH ønsker å ha et særlig trykk på gjennomføring.

1. Faglig fornyelse og relevans

Som handelshøyskole kjennetegnes NHH av et studietilbud som utvikler seg i tråd med utvikling og trender i nærings- og samfunnsliv. Samfunnet møter nå spesielt store omstillingsutfordringer, og en viktig del av NHHs pågående utvikling er å gjenspeile dette i forskning og undervisning, og gjennom dette bistå til verdiskaping og en bærekraftig utvikling.

Omstillingsutfordringene følger av både særtrekk i norsk næringsstruktur og av globale megatrender som rask teknologisk utvikling og bærekraftutfordringer knyttet til miljø, naturressurser og klima. Dette innebærer at bl.a. teknologiforståelse, innovasjon og bærekraft i økende grad integreres i høyskolens fagområder, i forskning og undervisning.

I undervisningen vil det eksempelvis på kursnivå være behov for fornyelse av ordinære kurs med vekt på å forstå sammenhenger mellom digital transformasjon, innovasjon, ledelse, økonomi og bærekraft, samt et balansert tilbud av kurs med direkte teknologisk innretning (eksempelvis programmering, robotisering, maskinlæring og kunstig intelligens). På programnivå vil det være behov for å vurdere nye sammensetninger av masterprofiler og studieprogram, også innenfor etter- og videreutdanningen.

Utviklingsavtalen skal bidra til å utvikle studietilbudet i takt med omstillingsbehov i nærings- og samfunnsliv. Det kan tilsi økt samarbeid med andre utdanningsinstitusjoner nasjonalt og internasjonalt. Tiltak som her blir vurdert, er blant annet lokalt samarbeid om spesialiserte mastergradskurs innenfor økonomisk-administrative fag, nasjonalt tverrfaglig samarbeid innen teknologi, og nasjonalt og internasjonalt samarbeid på ph.d.-nivå. NHH skal samtidig tilstrebe et godt læringsmiljø og pedagogikk som gir størst mulig læringseffekt.

Måleparametere:

- Utvikling av kurs-/programinnhold knyttet til analyseferdigheter, forretningsmodeller og ledelsesutfordringer i en digital økonomi med høy innovasjonstakt (kvantitative og kvalitative mål mht. utvikling i perioden i alle studieprogram, bl.a. basert på læringsutbyttebeskrivelser)
- Relevans (kvantitative og kvalitative mål mht. utvikling i perioden, inkl. utvikling på omfang internships, arbeidsmarkedsundersøkelser, studiekvalitetsmål i Studiebarometeret).
- Utvikling mht. samarbeid med nasjonale og internasjonale institusjoner (kvantitative og kvalitative mål).

2. Økt mangfold

NHH anser at mangfold i studentmassen legger til rette for høy inntakskvalitet og et godt læringsmiljø, noe som i sin tur øker kvaliteten i utdanningen. Mangfold oppnås gjennom en balansert kjønnsfordeling, en jevnere fordeling av norske studenter med hensyn til geografiske regioner og andre karakteristika, og et større innslag av gode internasjonale studenter. NHHs ambisjon er at NHHs studieprogram skal være et klart førstevalg innenfor økonomisk-administrative fag blant et mangfold av norske studenter, og tiltrekke seg høyt kvalifiserte internasjonale studenter.

Et mål om økt mangfold har viktige implikasjoner for hvordan NHH profilerer seg både internt og eksternt i rekrutteringssammenheng og generelt. NHH tilstreber også økt mangfold blant fagstab. Et svært viktig mål er her å øke kvinneandelen i fagstab. I utviklingsperioden, vil vi rette spesiell oppmerksomhet mot å øke kvinneandelen i innstegsstillinger, noe vi anser som et tiltak for å øke kvinneandelen i høyere stillingskategorier på sikt. NHH ønsker også å øke andelen tilsatte med internasjonal bakgrunn i fagstaben. NHH vil dessuten søke å bruke knappe kvinnelige ressurser i fagstab på en strategisk klok måte slik at flest mulig av NHHs studenter møter kvinnelige rollemodeller i auditoriene. Dette har særlig høy prioritet på bachelorstudiet.

Måleparametere:

- Øke antall og andel internasjonalt rekrutterte fulltids masterstudenter
- Kjønnsandeler blant studentene i alle NHHs utdanningsprogrammer, jf. at NHHs strategi presiserer et mål på minst 40 % av hvert kjønn i alle utdanningsprogrammer
- Jevnere fordeling av studenter med hensyn til geografiske og andre sosioøkonomiske karakteristika
- Øke kvinneandelen i innstegsstillingene og andelen internasjonalt tilsatte i faste stillinger i fagstaben.

3. *Forskning på topp nivå*

NHH skal være en ledende internasjonal handelshøyskole som viser vei i utvikling og formidling av kunnskap og kompetanse. En handelshøyskole kjennetegnes av fagområder og forskning som er nært knyttet til beslutningstaking i nærings- og samfunnsliv. NHH tilstreber eksellent forskning i møte med samfunnets utfordringer. Fra før gjennomsyrer kvalitetsaspektet alle NHHs forskningsstrategier. Forrige strategiperiode frembrakte tematiske og spissede forskningssentre innen utvalgte fagområder. Kommende strategiperiode bygger videre på dette, med et mål om eksellent forskning innen alle sentrale tema for en handelshøyskole på topp internasjonalt nivå. Gjennom utviklingsavtalen ønsker NHH en videreutvikling for å sikre kvalitet og balanse langs dimensjonene eksellent forskning og bidraget til å møte samfunnsutfordringene.

Måleparametere:

- Øke antall publikasjoner i topp tidsskrifter
- Øke oppnådde forskningsrådsmidler og EU-midler
- Øke søknadsaktivitet til Forskningsrådet og EU (omfang og kvalitet på søknader)
- Kvalitativ vurdering i form av *impact cases* som viser forskningens bidrag til samfunnsutfordringer.

Måleparameterne er satt opp iht. «tradisjonelle» mål på kvalitet. Usikkerhet mht. utviklingen i incentivstrukturen i sektoren, inkludert virkninger av «plan S», kan innebære et behov for en senere justering av måleparameterne.

Med vennlig hilsen

Øystein Thøgersen
Rektor

Kopi til: Forskningsadministrativ avdeling v/Linda Rud, Rektoratet v/Øystein Thøgersen

Dokumentet er godkjent og ekspedert elektronisk uten signatur

PROGRAMEVALUERING PH.D.

Saksbehandler Malin Arve
Arkivreferanse 16/01329-15

Utvalg	Møtedato	Utvalgsnr
Styret ved Norges Handelshøyskole	20.04.2022	24/22

Forslag til vedtak:

Styret tar saken til orientering.

Bakgrunn:
Programevaluering utarbeides for alle gradsgivende studieprogram ved NHH minst hvert femte år. Dette er en del av det systematiske kvalitetsarbeidet ved høyskolen og har sitt opphav i nasjonale krav til periodisk kontroll av studieprogrammene gjennom Studiekvalitetsforskriften § 2-1 (2). Forrige evaluering av ph.d.-programmet ved NHH ble gjennomført i 2016.

Programevalueringene skal dekke alle vesentlige forhold av betydning for utdanningskvaliteten. Ved NHH styres programevalueringer av dokumentet «Retningslinjer periodiske evalueringer (programevalueringer)». Representanter fra næringslivet, studenter og eksterne sakkyndige samt instituttene og programmets referansegruppe har bidratt med kommentarer og innspill til evalueringen. På bakgrunn av evalueringen skal det utarbeides en handlingsplan som skal vedtas av prorektor for forskning.

Majoriteten av NHHs ph.d.-studenter tar ph.d.-utdanningen over fire år, hvorav 25 % er pliktarbeid, slik at ansettelsesperioden omfatter tre år med ren doktorgradsutdanning (jf. Forskrift om ansettelsesvilkår for stillinger som postdoktor, stipendiat, vitenskapelig assistent og spesialistkandidat). Programmet består av en opplæringsdel og et selvstendig forskningsarbeid som munner ut i selve ph.d.-avhandlingen.

Evalueringen konkluderer med at NHH har et ph.d.-program som er i tråd med skolens ambisjoner. I NHHs strategi for 2022-2025 er ph.d.-utdanningen beskrevet under delmål 3 i forskningsstrategien:

> DELMÅL 3 EN SOLID OG ETTERSPURT FORSKERUTDANNING
> Ph.d.-utdanningen ved NHH skal holde høy internasjonal kvalitet.

Ph.d.-utdanningen ved NHH skal tiltrekke seg de beste norske og sterke internasjonale studenter. Forskerutdanningen skal være en integrert del av forskningen ved NHH, med kvalitet på et høyt internasjonalt nivå. Uteksaminerte kandidater skal nå opp i konkurransen om vitenskapelige stillinger ved anerkjente forskningsinstitusjoner, og være etterspurte av kunnskapsintensive virksomheter utenfor akademia.

Evalueringen identifiserer imidlertid også noen områder som kan styrke programmet ytterligere. Mange av disse områdene arbeides det allerede med, men noen er nye (i den forstand at det per i dag ikke arbeides aktivt med dem). Alle områdene er listet opp og kategorisert i Tabell 3 (side 43) i vedlagt rapport for programevaluering av ph.d.-programmet. Kort oppsummert er nye områder for en tentativ handlingsplan som følger:

- Overordnet programdesign:
  - Evaluere fordelingspolitikken for stipendiatstillinger på tvers av spesialiseringene
  - Evaluere balansen mellom standardisering og spesielle behov innenfor hver spesialisering
- Opplæringsdelen:
  - Evaluere omfang på opplæringsdelen og variasjon mellom spesialiseringene
  - Evaluere behovet for retningslinjer for obligatoriske elementer i opplæringsdelen
  - Vurdere muligheter for ytterligere samarbeid på tvers av spesialiseringene
- Forskningsarbeid:
  - Evaluere publikasjonspolitikken før innlevering av avhandling og oppfølging av publikasjoner etter disputas
  - Evaluere prosessene for oppnevning av veiledningskomite
- Karriereutfall («Placement») og karrieretjenester:
  - Utvikle en tydelig NHH strategi for karriereutfall og karrieretjenester for ph.d.-programmet
  - Styrke utveksling av beste praksis på tvers av spesialiseringene

Siden programevaluering dekker tematikken for den årlige ph.d.-meldingen, er dette en kombinert rapport som også oppsummerer årlig statistikk som normalt presenteres i ph.d.-meldingen.

Vedlegg: PhD Programme Evaluation

Sak 24/22 Vedlegg

PhD Programme Evaluation

NHH

NHH Board Meeting
April 2022

CONTENTS

1 THE NHH PHD PROGRAMME EVALUATION 2021/2022

The PhD programme at NHH aims to qualify candidates for research activities at a high international academic level. The overall purpose is to give the student a deepened and broadened theoretical and methodological knowledge, alongside with the experience of having completed a substantial piece of original scientific work to a high academic standard. The PhD programme offers specialisations within the fields of economics and business administration for candidates seeking an academic career, as well as challenging jobs in the private and public sector within management and consultancy.

1.1 About the 2021/2022 PhD Programme Evaluation

All degree granting programmes offered at NHH undergo periodic programme evaluations every 5 years, in accordance with the guidelines for periodic evaluations at NHH. The former evaluation of the PhD programme was in 2016. The Vice Rector for Research who is also the Dean of the PhD programme is responsible for the evaluation and subsequent follow-up. The guidelines state that the evaluation should cover all six quality aspects of the Framework for systematic quality work: programme design and management, admission quality, teaching and assessment, relevance, framework quality, and learning outcome. Moreover, the evaluation should include a summary of the Assurance of Learning (AoL)-work which is part of the AACSB accreditation process, and an assessment of the learning outcome descriptions at programme level. The PhD programme evaluation is based on internal and external evaluations:

The External Evaluations

As part of the PhD programme evaluation an external evaluation committee was appointed. The aim of including an external committee is to have the quality of the PhD programme assessed by leading experts, enabling comparison with peer institutions, and opening up for suggestions for further improvement. Based on suggestions from the Research Committee, the Vice Rector for Research appointed the following external evaluation committee:

- Luc Renneboog, Professor of Corporate Finance, Tilburg University (chair)
- Grazia Speranza, Professor of Operations Research, University of Brescia
- Torben Pedersen, Professor in Global Strategy, Bocconi University

Background material sent to the committee consisted of reports, surveys and internal evaluations as listed below. In addition, the committee received general information on the PhD programme (overview of programme, programme management and regulations, the PhD contract, admission procedures, the training component and PhD courses, thesis work and supervision, and details of the monitoring process), as well as the guidelines for NHH programme evaluations. The committee site visit was held digitally 25-26 November 2021. The evaluation committee had several meetings; - a meeting with members of the Rectorate; - meetings with each department represented by the Head of the Department, PhD coordinators, and administrative staff; - meetings with PhD Scholars; and meetings with the Dean of the PhD programme, and staff of the Office of Research Administration. The evaluation committee submitted an evaluation report 20 December 2021 (enclosed in Appendix 10.1).

The guidelines for periodic evaluation at NHH Norwegian School of Economics also require private sector ("*næringslivs"*) representation. Interviews with PhD Graduate employers were thus conducted in March 2022 to get their perspective on the NHH PhD Programme.

Internal evaluations

In addition to the report from the external committee and the PhD Graduate Employer survey, the PhD Programme Evaluation draws on several internal reports, surveys, and evaluations. These are listed below, of which the External Committee received the items a) – e), as background material.

a) *PhD Programme Report 2020* presented to the NHH Board March 2021
b) *Admission report of the PhD programme 2021* presented to the Research Committee in June 2021 (enclosed in Appendix 10.10)
c) *Self-Assessment of PhD Programme by the Departments*, per May/June 2021 (enclosed in Appendix 10.2).
d) *PhD Student Survey*, conducted April/May 2021 (enclosed in Appendix 10.3)
e) *PhD Graduate Survey*, conducted May/June 2021 (enclosed in Appendix 10.4)
f) *NHH Annual Report 2021* (enclosed in Appendix 10.5)

This report summarizes the findings of the programme evaluation and presents some preliminary and tentative topics for the upcoming action plan for the programme. Moreover, as the programme evaluation also covers the topics of the annual PhD programme report, this is a combined report that also integrates the annual statistics normally presented in the annual PhD report. A draft of the report was presented and discussed in the Research Committee 30 March 2022, for comments and inputs that have been incorporated.

1.2 NHH PhD Programme: Benchmarking and Goals

NHH's strategy defines objectives and visions that apply to the NHH PhD programme, and which will serve as guidelines for this programme evaluation. The 2018-2021 strategy of NHH states several visions and goals that apply to the NHH PhD programme: "*NHH aims to be a leading international business school that leads the way in the development and dissemination of knowledge and expertise."; "NHH's activities shall underpin the UN's 17 Sustainable Development Goals"; "NHH's PhD programme shall attract the best Norwegian and strong international students. NHH shall produce more graduates who succeed in the competition for scholarly positions at recognised international institutions."*

These ambitions lay the foundation for the current programme evaluation, and also have served as guidelines for the External Evaluation Committee: *"The Norwegian School of Economics has set high levels of ambition, in terms of benchmark universities". "Most* *departments confirmed that they aspire to belong to the top European research-oriented universities …".*

The Committee also emphasizes that quality of the PhD programme is closely related to this ambition: *"There is a strong correlation between the research quality of a university/school and the quality of its graduate (PhD) school. On one hand, the research quality of a university/school enhances its international reputation, the capacity to attract high-potential PhD students and to transform them into high-quality young researchers. On the other hand, the international recognition of the quality of its PhD alumni reinforces the research reputation of a university/school and contributes to move its research quality further ahead."*

The Evaluation Committee considers NHH's ambition for its graduate school to be feasible, and that *"NHH has the resources and ambition to develop a PhD programme on par with the top-universities in Europe"*, though it notes in some areas there is still some way to go before NHH meets its ambitions. The committee report provides valuable input for further development of the programme to reach NHH's high ambitions.

The Evaluation Committee sets forth two criteria which it considers as international visible quality standards:

a. *"publications of students in the period of the PhD research and within 6 years subsequent to graduation; a quality signal would also be R&Rs (rewrite and resubmissions) during the PhD,*
b. *placement of PhD graduates in the best Norwegian and European universities (e.g., in the benchmark universities listed above), in national and international institutions (e.g., in central banks), in R&D departments of multinational companies."*

While the high ambitions for the programme are acknowledged, the Evaluation Committee, however, points out that what defines a successful PhD programme seems to be answered differently by various stakeholders. For example, they note that the government is highly concerned that *"graduation should take place within the planned duration of the PhD programme, with as little delay as possible"*, and moreover, that "*Some departments believe that the international placement record is a very important quality signal whereas other departments do not seem to agree",* or that they *"do not aim at preparing students for this* [international] *jobmarket*".

In conclusion, given the ambition for international recognition and the possibility to signal research quality by means of the quality of the PhD programme, the Evaluation Committee recommends that international quality standards should be adopted that focus on

a. *"placing at least some of the students at the benchmark cohort of universities", and*
b. *"stimulating/supporting students to publish in the top international academic journals".*

1.3 Objectives of the Programme Evaluation

An important output of the programme evaluation will be measures and strategies for a consistent improvement of the quality of the PhD programme. While the main part of this report will focus on how to improve the programme, this section provides an initial reminder of the overall impression of the Evaluation committee:

> *"The overall impression of the committee is that much is going well with the PhD programme of NHH. It is clear that all departments are aware of the international quality standards. Given that several best practices have only recently been implemented by (some of) the departments, harvesting the fruits of these investments is expected in the years to come." "NHH has the resources and ambition to develop a PhD programme on par with the top-universities in Europe, …. there is still some way to go before NHH meets its ambition"*
>
> The Evaluation also lists the perceived strengths of the NHH PhD programme:
>
> - *"strong commitment by all departments to their PhD programmes,*
> - *awareness of the required quality level to be internationally competitive and the introduction of some best practices also used at the benchmark universities,*
> - *PhD students are very generously remunerated,*
> - *the size of the yearly PhD intake is adequate which will enable to provide critical mass for common courses (10-15 students) and even for the more specialized courses (3-5 students),*
> - *the gender balance is excellent (and among the very best in Europe),*
> - *marketing the programme to attract students seems well executed …"*

The main objective of the programme evaluation, however, is to identify areas for continuous improvement. The contributions of the Evaluation Committee, the self-assessments by the departments, the student and graduate surveys, and the interviews with PhD employers, all bring forth valuable suggestions for improvement.

1.4 Structure of Report

The guidelines for periodic evaluation at NHH Norwegian School of Economics set the framework for the overall programme evaluation. The periodic programme evaluations shall cover all six quality aspects mentioned in the Framework for systematic quality work:
- programme design and management, - admission quality, - teaching and assessment,
- relevance, - framework quality, and - learning outcome. In addition, the evaluation has to include a summary of the Assurance of learning work (AoL-work) for the last five years and how the programme meets the learning outcome descriptions at the programme level. This thus sets the structure of this report:

Chapter 2 looks into programme management, the structure and content of the PhD programme, and framework quality. The topic of Chapter 3 is admission quality and recruitment. The quality aspects of teaching and assessment are covered in Chapters 4 - 6, where chapter 4 focuses on courses and the training component of the programme, Chapter 5 on the thesis part of the programme, and Chapter 6 covers the overall student follow-up and monitoring of progression. Placement and career support are the topics of Chapter 7. Note also that further aspects of framework quality are described in the different chapters where it is relevant. Chapter 8 covers Assurance of learning and programme learning outcome. Chapter 9 summarises the report and the main prioritized areas for improvement.

2 FRAMEWORK QUALITY, PROGRAMME DESIGN AND MANAGEMENT

This chapter provides an overall view on framework quality of the programme, programme design and management. In this respect, we will start by briefly referring to the 2018 NOKUT audit of the PhD programme, which resulted in a “clean report”; the quality assurance system of the PhD programme was evaluated and approved without any further requirements. The NOKUT report, however, also offered valuable advice on how to further develop the quality assurance system in the long term. The advice, which has been followed up, addressed the following: - to re-introduce course evaluations at PhD level (cf. Section 4.4); to introduce regular courses in supervision (cf. Section 5.3); and to consider if systematic collection of information from the assessment committees for PhD theses could be used for assessing the quality of the PhD programme (this aspect was considered done in connection with the AoL work (cf. Chapter 8 / Appendix 10.16)).

2.1 Framework Quality

The concept of framework quality covers a broad range of topics, including the quality of the staff with respect to research and teaching competence; efficient and expedient administrative functions and information systems; as well as the conditions for students’ learning and their physical and psychosocial working environment. While these are important quality dimensions, many aspects of framework quality pertain to the entire entity of the school, and are well covered in other evaluation and accreditation reports. The scope of this report has thus been narrowed to the specifics of the PhD programme. We will, however, briefly refer the comments of the evaluation committee in this respect. They initially note that *“NHH’s ambition level for its graduate school seems feasible because:*

- *NHH is very generously funded (judging from the faculty-student ratio relative to that of its continental European counterparts of similar reputation),*
- *PhD students receive a high salary which makes them among the best paid in Europe,*
- *Faculty members publish in international top journals,*
- *NHH also recruits international PhD students and faculty members and*
- *NHH is able to attract national and EU funding”.*

Comments on conditions for PhD students’ learning and working environment will be covered in chapter 6, while issues of administrative functions and information systems will be covered in all chapters where relevant.

2.2 Programme Management

While the NHH Board has the overall responsibility of the PhD programme, this responsibility has been delegated to the Vice Rector for Research who has the academic and administrative power of decision for the PhD programme, as well as the chief responsibility for the quality assurance in the programme. The Research Committee is an advisory committee for the Vice Rector. Appendix 10.7 gives an overview of the main rules and regulations of the PhD programme, while further details on programme management are found in Appendix 10.8.

Regarding programme management, the main issues pointed out are related to the allocation of the number of PhDs to the departments, the role of the central office, as well as cooperation and best practice exchange between departments:

Allocation of the Number of PhDs to the Departments

The Evaluation Committee notes that the *“allocation of PhDs to departments seems not to be driven by quality criteria”*, and that *“allocation of resources is primarily and largely based on departments’ contributions to teaching, ...”*. They find that some *“discretion is used to favor the departments that perform better in terms of research”*, however, mainly it *“seems that the number of PhDs is essentially equally divided across departments with a correction for department size.”*

The Evaluation Committee advises that more PhD positions are granted to departments that prove able to deliver high quality graduates, and where the quality criteria are made public and transparent: *“It may be advisable to grant more PhD positions to departments able to deliver high quality PhD graduates. This could be measured by considering the quality of the papers published by the PhD graduates and/or by their supervisors, and by considering the PhDs ability to perform well on the international job market. Although it has been said that, in addition to the teaching load as an allocation criterion, some discretion is applied in the allocation process, making quality criteria public and transparent would, in a much stronger way, push the departments towards adopting behavior consistent with such quality criteria. Also, a criterion based on the teaching load may encourage the departments to offer courses that are necessary and useful.”*

Central Management and Standards versus the Diversity of Specialisations

The overall academic and administrative power of decision making and quality assurance for the programme has been clearly delegated to the Vice Rector for Research, with the Research Committee as an advisory body. As a PhD programme, with different six specialisations, programme management over the years has allowed for flexibility and tailoring to the different needs of these specialisations. The Evaluation Committee, however, raise the questions whether the NHH PhD programme can be improved by clearer programme standards and more exchange of best practice across departments.

The Evaluation Committee exemplifies several areas where their impression is that goals and policies are entirely delegated to the departments, for example the *“departments are free to determine:*

- *the educational standard (minimum number of ECTS for course work, number of mandatory courses, content of the programme and of the courses),*

- *how students are allocated to or how they find a research topic: students may choose a research area and a thesis topic themselves or they are assigned a research area and a thesis topic,*
- *the matching of student and supervisor (immediate matching at the very start of the programme or matching after the first year based on a student's preference),*
- *the duration of the PhD programme (4 versus 5 years),*
- *how many papers should the final thesis contain (3 or 4 papers)*
- *whether they prepare students for the (international) job market or not."*

These aspects leave the impression that consequently, *"there are several PhD programmes, one per department, most of which do not seem to collaborate or share resources".* They have the impression that *"there is very little exchange of best practice across departments,"* and see this as *"waste of resources that every department develops their own model, which makes collaboration and benchmarking across departments very difficult.*"

The Evaluation Committee notes that *"NHH cannot afford to have this substantial variation as it to some extent comes at a price of a lower quality PhD programme."* It recommends that the *"central office could streamline the process of introducing best practices into all departments"*, with more standardisation of some of the parts of the PhD programme, or at least effective exchange of best practice.

2.3 Programme Design

The objective of the PhD programme at NHH is to qualify candidates to conduct research of high international academic quality and to perform other types of work where society requires a high level of scientific expertise and analytical thinking in accordance with sound scientific practice and research ethics standards. An overview of the structure and specialisations is found in appendix 10.6, while the purpose of this section is to highlight main issues of programme design brought forth in the programme evaluation.

PhD Course Work: Minimum ECTS Requirement and Timing

The PhD programme of NHH is a three-year programme, as is normal within the Norwegian system. The national rules specify a minimum of 30 ECTS for the training component, while the PhD regulations of NHH specify a minimum of 45 ECTS. However, as this is a minimum requirement, there are now two different requirements within the NHH PhD programme; four specialisations require the minimum of 45 ECTS points, while two specialisations, Economics and Finance, have implemented a requirement of 60 ETCS.

This aspect is also commented upon by the Evaluation Committee; *"There is substantial variation in the amount of course work across departments. While some departments offer little course work, others offer a very large amount of course work, especially in the light of the duration of the programme".* The committee recommends that *"Some streamlining of programmes in terms of requirements could be contemplated"*, although they note clear trade-offs to be considered in this respect:

- *"Course work is of great relevance both to provide a common basis to the PhD students who typically have heterogeneous backgrounds and to create a basis of knowledge and methods that will allow them to perform high-quality research."*
- *"The problem is that the duration of the PhD programme, considering the 25% that goes into teaching/research assistance, is essentially of 3 years and the time that the courses absorb is subtracted from the time for the scientific work."*

Compared with the benchmark universities, the Evaluation Committee notes that the *"duration of the course work in the PhD programmes of the benchmark universities (where the duration of the PhD programmes usually exceeds 4 years) amounts to 1 to 2 years (or about 60 to 120 ECTS of which some ECTS refer to the writing of papers)."* Given the duration of the PhD programmes at NHH, the committee recommends "*that the course work is not expanded beyond one year"*. The aspect of the ECTS of the Course Programme is revisited in Chapter 4 on the training component.

A further aspect is the timing of training component. A full study year normally counts for 60 ECTS. In the NHH PhD programme, the PhD candidate must normally pass the training component within the second year of the program, however, the Evaluation Committee observes that the time for completion of the training component varies across departments: *"In some departments the course work is taken in the first year whereas in other departments the course work seems to be spread out over two years (sometimes even expanding into the third year)."*

In this respect the recommendations are clear: "*It is advisable that the course work be taken in the first year and be completed by the end of this year. The first year should provide methodological (theoretical and empirical) skills as well as courses that explore the literature and give students exposure to different research topics. The course work will also enable students to make informed choices about research topics (and whom to collaborate with). The international practice is a bottom-up approach: students are not given a research topic for which to apply but are given the opportunity to make an informed choice towards the end of their doctoral course work phase (here, at the end of year one)."*

Duration of the PhD programme

Several departments have raised the concern that the Norwegian three-year PhD Programme model[1] inadequately prepares the PhD students for the international job markets. The issue is, however, complex, and involves legal, financial and strategic considerations. The Evaluation Committee has several comments and suggestions related to this issue.

The committee acknowledges that *"it is possible to graduate with a good PhD in 4 years"*, and that this is possible *"even if this is only a part-time basis given that 25% of the time consists of teaching work for faculty"*. However, given international quality standards of publications and placement (see Section 1.2), this may be a problem as "*it is very difficult to write a PhD thesis within this time frame which is internationally competitive."* The four-year

[1] The Norwegian PhD programme is a three-year programme, following a three-year bachelor's degree and a two-year master's degree. This is often referred to as the 3+2+3-year model. Note that Research Scholar positions at NHH normally cover four years, that is the three-year programme, combined with an extra year of teaching.

"PhD candidates cannot be competitive on the international job market where PhD students take 5 to 6 (sometimes even 7) years to complete the PhD".

The Evaluation Committee points out several potential measures that may be considered to cope with the problem:

- *"NHH may consider working, possibly along with the best Norwegian universities, to convince the Norwegian government that a 4-year programme is below the international standard". An alternative also suggested was that* "the government funds longer PhD contracts*"*
- *"...alternatives should be explored by offering students, from the start, a longer contract at an 80% salary or adding a 5th year by means of a (teaching) grant".*
- *"A period of one or two years of post-doc at NHH may somehow compensate for the reduced duration of the PhD programme, if the teaching load and other non-scientific tasks remain limited and the post-doc remains mainly focused on the research projects."*

The second bullet point is an alternative done by some of the departments today, where newly enrolled students take an annual 20% unpaid leave of absence, in effect extending their four-year programme to five years. The legal implications as well as the implications for throughput statistics which have been the focus of our owner, has not been analysed. The third bullet point poses an interesting alternative for improving placement (as well as publication records). An additional alternative previously set forth, involves strengthening the academic preparation prior to the PhD programme. For further discussion, see Section 7.1 on Placement and Guidance.

2.4 Regulations for the PhD Degree at NHH

In parallel with the programme evaluation, a revision of the PhD regulations has been planned. The PhD Regulations (Regulations for the Philosophiae Doctor degree at NHH) were fully revised in 2017 and approved by the NHH Board on 7 December 2017. The experience throughout the last years has revealed minor aspects which should be improved or clarified. The revision also enables taking into desirable changes following this programme evaluation[2].

[2] The revision is expected to take place in parallel with the revision of the Dr.Philos. Regulations. The current Dr.Philos. Regulations (Regulations for the Doctor Philosophiae degree at NHH) were adopted by the Executive Board of NHH on 16 October 2003, and changed on 8 December 2005. The Regulations do not adequately reflect the current underlying organisational structure of authority and are due for a full revision. The revision will take place when adequate juridical capacity is in place at the Office of Research Administration.

3 ADMISSION AND RECRUITMENT

The overall goal of the recruitment of PhD candidates is to attract the best possible candidates for the PhD programme. More specifically, NHH aspires to recruit students with a solid background from international highly ranked schools. This also includes recruiting a high share of well-qualified NHH students. Good recruitment of well-qualified candidates is of utmost importance for the resulting quality of the PhD programme. While placement in high-ranked universities and business schools is important, NHH's responsibility to educate candidates to academic positions in the Norwegian university sector, as well as for the Norwegian industry is also acknowledged.

Continuous efforts are made to improve the recruitment process. *The Admission Report of the PhD programme* is prepared annually and discussed in the Research Committee. Measures for improvement are considered every year. This is an important part of the quality assurance of the recruitment process.

Key issues discussed in this chapter are: The quality of applicants (Section 3.1), Marketing (Section 3.2), the screening process (Section 3.3), admission criteria (Section 3.4), and diversity (Section 3.5). The chapter starts by presenting some background information.

Key facts on programme admission

The greater part of the PhD students holds Research Scholarships at NHH, while a few are externally financed (for details, see Appendix 10.2). The PhD programme has a main admission where the PhD Research Scholar positions are announced mid-November with a deadline mid-January and a subsequent start of the studies mid-August. If applicants do not match the quality standards of NHH, scholarship positions are withheld. In addition, some of the departments also announce positions in the fall. The department of Finance only admits new PhD Research Scholar every second year, and the department of Professional and Intercultural Communication announces their positions later in the spring semester and are not part of the main admission.

We will briefly highlight key numbers of the PhD Admission:

- *Marketing: Marketing strategies have in recent years included more targeted marketing towards selected countries and schools. Marketing channels include external portals, targeted ads on Facebook, and LinkedIn, finn.no, nav.no, Jobbnorge, nhh.no, and Euraxess. There also is advertising tailored to the needs of each department.*

- *The application numbers: The number of received applications to the main admission has varied in the range of 579 – 829 applications the last five years, with 829 applications from 681 different applicants in 2021. Note that the number is also subject to variations in the number of offered specialisations.*

- *Background of applicants: In 2021, as in previous years, the majority of applicants were foreign nationals (98.3%). Around 64% of the applicants on the departments' shortlists (i.e., their top-ranked applicants) hold a master's degree from high-*

ranked schools. In 2021 4.8% (2020, 1.9%) of the applicants were NHH master graduates.

- *Gender balance of applicants: The proportion of female applicants the last five years has varied in the range of 25.5%-32.5%. After an exceptionally low enrolment of females in 2018, the gender focus has been further intensified the past years. The proportion of female applicants was 32.5% in 2021.*
- *Reasons for application: The annual applicant survey provides insight into why the applicants have applied to NHH. The top three criteria for the applicant's choice of PhD programme are 1) financial support, 2) the PhD specialisations, and 3) the school's reputation for its research. The top three reasons given for applying for a scholarship at NHH were 1) academic quality and reputation, 2) to improve career possibilities, and 3) the Scandinavian culture and welfare system.*
- *Acceptance rate: The acceptance rate for the offers of Research Scholar positions has varied 61%-88% the last five years. In 2021 a total of 19 PhD students accepted offers in the main admission. The acceptance rate was 79% (six individuals declined the offered positions).*
- *Gender balance of new PhD students: The last five years, the female proportion of new PhD agreements varied between 41% and 55%, with the exception of 2018 where the proportion was as low as 10%. The female proportion in 2021 was 48%.*
- *Background of new PhD students: The proportion of new students with non-Norwegian citizenships has varied from 50% - 72% the last five years, in which the proportion in 2021 was 72%. The proportion of enrolled PhD students with a master's degree from NHH has varied from 36.4% to 63.6% the last five years, and accounted for 44% in 2021.*

For further background information se the full 2021 Admission Report (Appendix 10.10), the PhD chapter in the NHH Annual Report (Appendix 10.5), and a general description of current admission procedures (Appendix 10.9). The self-assessment reports of the departments (Appendix 10.2) offer further detailed information on the recruitment strategies and processes within the departments.

3.1 Quality of Applicants

Given the generous funding scheme for PhD positions in Norway and the quality of faculty and research groups at NHH, it seems reasonable that the programme should be able to attract more high qualified applicants. Although the number of applicants is high, it is challenging to increase the portion of applicants from highly recognized schools (for example as defined by the Shanghai GRAS Economics top 200 list). This also includes recruiting a higher share of well-qualified NHH students and well-qualified students from other Norwegian institutions. The school thus has a continuous attention to how recruitment can be improved – through e.g., marketing and screenings processes, admission criteria (see sections below).

A further challenge is, however, not only to increase the number of good quality applicants, but also to increase the acceptance rate of offers. The propensity to reject offers may be closely related to the quality of the applicant. For some specialisations this is an issue that deserves further attention.

While these aspects are important, however, a crucial factor is the quality of the PhD programme itself. The schools with the best faculty and the most active and vibrant research groups will also in the future attract the best students. Thus, attracting top quality faculty and building strong research groups are key also to recruiting the best PhD students. In this respect, as the entire programme evaluation addresses the quality of the PhD programme, improvements in several other areas may also improve the quality of applicants to the programme.

3.2 Marketing

Although the number of applicants for the PhD programme has been steadily increasing the past decade, key attention is still on the gender balance and on increasing the number of applicants from highly ranked schools. These aspects are also key focuses of the marketing strategies for the program:

- *Marketing and the gender balance: While last year's admission achieves a close to an even gender balance, the experience of recent years show that unfortunate fluctuations may occur, calling for a steady focus on improving/maintaining the gender balance of admission in the long term.*
- *Marketing and targeting applicants from highly ranked schools: Likewise, the attention is continuously drawn to how to attract even higher numbers of applicants from highly ranked schools. Starting with the marketing for the 2022 admission, the Section for Communication and Marketing now contributes to marketing and analysis of marketing channels, and will thus further contribute to achieving this ambition.*

The Evaluation committee points out the marketing of the programme is well executed, and that NHH shares its problems with main of its benchmark universities: *"marketing the programme to attract students seems well executed. Departments are worried about the ability to recruit excellent students: many of the applicants are from the Middle East/Africa and do not meet the minimum standards to enter a PhD programme such that the number of truly good candidates is limited. NHH shares this problem with most of its benchmark universities. There is always a brain drain of very talented candidates to US top universities and the competition among European universities to attract very good students is strong. As NHH is present on the right fora and websites, and makes much publicity, it is not clear what NHH could do beyond the current efforts".*

Nevertheless, continuous efforts are made to improve the marketing of the PhD programme. The annual Admission Report (Appendix 10.10) gives an overview of the current year's marketing, providing a basis for evaluation and improvement. The report also describes the marketing process which involves the departments, including faculty, the Office of Research

Administration, and the Office of Human Resources. While the main marketing and admission process is common for all specialisations, there is a considerable room for tailoring marketing, as the different specialisations have different preferences in terms of where ideal candidates are located.

Each year small adjustments are made based on the past year's experience with the external portals used to promote the PhD programme and the announced positions, as well as the targeted marketing for the specialisations. Nevertheless, it is demanding to find the best way to promote the programme to attract even more qualified applicants from highly recognized schools and specific countries (Nordic countries, specific countries in Europe and the UK). Starting with the main admission 2022 we believe enhanced cooperation with the Section for Communication and Marketing on marketing and external portals will improve future marketing.

3.3 Screening

Candidates are in general assessed by their academic performance, their ability to write promising research proposals, and their match with the current research agenda and available supervisors (see Section 5.3 on the pairing of candidates and supervisors). All departments include rounds of interviews with the aim of recruiting the best qualified candidates.

The screening process is extensive, both due to the large number of applications, and since the screening process involves many entities (the departments, the Office of Human Resources, the Office of Research Administration, the Vice Rector for Research, and the Academic Appointment Committee). In addition, the speed of the process may be crucial for the acceptance rate of the first prioritized offers. Several actions have been taken to improve the process; clear time lines so that all involved can plan the process and have the documents ready within the deadlines; the inclusion of screening questions[3] in the cloud-based recruitment tool Jobbnorge (however, as noted by the departments, there is a considerable room for improvement in this tool); and improved automatic email and web-based information to reduce the number of (unnecessary) inquiries from applicants.

3.4 Admission Criteria

Attention has also been given to the admission criteria, with the following main adjustments the last five years:

- *Proficiency tests:* Prior to the 2017 main admission, an evaluation of the eligibility requirements was done. It was decided to change the eligibility requirements of

[3] Examples of screening questions include questions at to the duration of the master's degree, if they have written a thesis, title of thesis, which institution awarded their master's degree, and scores on language proficiency tests.

proficiency test of GMAT or GRE[4] and IELTS or TOEFL[5] tests from an absolute requirement to a norm unless they are waived from the requirement. The departments are free to decide if there should be an absolute requirement. Also, in relation to minimum scores, it is now changed to "…minimum scores we normally require". Prior to the 2022 admission, PTE Academics[6] were included as a third test, in addition to TOEFL and IELTS.

- *References:* Prior to the main admission in 2017 the absolute requirement of at least two letters of recommendations was changed to a requirement where the applicants must include contact information of two references. However, applicants are informed that a letter of recommendation will strengthen their application.
- *Adaptation to changed NOKUT guidelines:* To be enrolled in the PhD programme at NHH, the applicants must normally have completed a five-year master's degree[7], i.e., three years of bachelor and two years of master's studies. In June 2020, NOKUT adjusted its guidelines and practices for recognition of foreign higher education. The changes make the recognition process more flexible and better suited for today's state of affairs in education. With the new guidelines there will be less focus on the number of credits, and more types of foreign master's degrees are regarded as equal to the various Norwegian two-year master's degrees. In 2021, after discussion in the Research Committee, the Vice Rector for Research decided not to change the eligibility requirements since the PhD Regulations already allow the Vice Rector for Research to accept other equivalent education as a basis for admission following an individual assessment cf. section 2 in the PhD Regulations.

3.5 Diversity

Diversity applies to the gender balance as well as geographic diversity:

Gender Balance

The Evaluation Committee notes that *"the gender balance is excellent (and among the very best in Europe)"*. Efforts are however still continuously made to increase/maintain the number and proportion of female applicants, and were even further intensified after the exceptionally low enrolment of females in 2018. With the exception of 2018, the share of new female PhD has varied between 44% and 55%. The experience of recent years show that

[4] GMAT: You need to attain a score of minimum 600 Points, GRE: Quantitative -Reasoning: score of 152 points (660 points old scale), Verbal Reasoning: a minimum score of 153 points (500 points old scale)

[5] The applicant is waved from TOEFL/IELTS/PTE Academic if he/she complies with the following: you are a native English speaker, or if you have a qualifying master's degree from a Nordic school (Norwegian, Swedish, Danish, Finnish or Icelandic), or you have a qualifying master's degree where the language of tuition was English. You are waved from the GMAT/GRE tests if you have a qualifying master's degree from a Nordic (Norwegian, Swedish, Danish, Finnish or Icelandic) school.

[6] PTE Academic minimum score: 62

[7] To be admitted to the PhD programme, applicants must normally have: Master of Science (MSc) or comparable degree relevant for your specialisation (e.g. MSc in Economics and Business Administration, Social Sciences, Psychology, Philosophy, Mathematics, Engineering, Industry, Management, Law), plus a three year's bachelor degree, Minimum B (4) in Grade Point Average (GPA), five-point scale (A=five, B=four, C=three, D=two, E=one), Minimum B (4) on their master thesis, An adequate level of academic and English language proficiency. This may require specific documentation of proficiency test (GMAT or GRE and TOEFL, IELTS or PTE Academic), unless the applicants are waived from this requirement.

unfortunate fluctuations may occur, calling for a steady focus on improving/maintaining the gender balance of admission in the long term.

Geographic Diversity

A large share of the PhD students is recruited from abroad, the last five years this share has varied in the range of 50%-72%, thus with a share of Norwegian students of 28%-50%. However, the share of new PhD students with a Norwegian master's degree is higher, i.e. 36%-64%. NHH has thoroughly assessed the high proportion of foreign students. A main conclusion is that NHH prioritizes quality, and seeks to recruit the best candidates. However, there is still a goal set by the NHH Board, that the proportion of foreign students should be 40-60%. The shortage of Norwegian/Scandinavian applicants, and a large number of foreign applicants is a general challenge for PhD programmes at Norwegian universities. In the case of NHH, this is probably reinforced by the industrial sector's recruitment campaigns and good salary offers at well-reputed companies. In marketing the positions, to uphold a geographic balance and diversity NHH thus makes efforts to recruit talented Norwegians and candidates with a master's degree from Norway.

4 THE TRAINING COMPONENT

The first part of the NHH PhD programme mainly consists of course work. In parallel with coursework, students are often engaged in developing their research project and skills to develop as a professional researcher. The training component of the programme comprises the coursework in compliance with the regulations for the PhD programme, and it must include training in the philosophy of science/ethics. The fulfilment of the course work means that the student has achieved broad knowledge in the basic methods and disciplines relating to the study of economics and business administration, methodology, theory, and empirical aspects of the chosen field of study. Each semester NHH holds a series of PhD courses in all specialisations. These courses are also open for PhD students from other universities. The NHH PhD website offers an overview of courses currently provided, where the links to each course provide further information on learning outcomes, topics, and literature.

In assessing the training component, one should also bear in mind that the PhD students in the PhD Student survey (Appendix 10.3) mentioned the course work as a source of frustrations and challenges. The main frustrations and challenges were related to the workload of courses the first year, resulting in not much available time to work on the research/thesis. Moreover, some thought there are too many mandatory courses and lack of flexibility in choosing courses, while others reported lack of relevant courses during the first year. However, when asked about the primary benefits of the programme it was highlighted by some that the courses offered at NHH are of high quality and gives a comprehensive training in methodology. Also, the opportunities to take courses at other institutions, was reported as an appreciated benefit.

For further information Appendix 10.11 lists the recent 2021 courses and provides an overview of mandatory courses for each specialisation. Appendix 10.6 provides background information with an overview of the structure of the training component. See also Appendix 10.2 which provides further information on course provisions within each specialisation.

4.1 ECTS of the Course Programme and Specialisations

The PhD programme of NHH is a three-year programme, which is in line with national standards. The PhD programme consists of a training programme with course work, and the thesis work. Decisions on the ECTS of the course component is an important aspect of programme management, having implications for the acquired knowledge of methods and disciplines, as well for the time dedicated to the scientific thesis work on the thesis. The national rules specify a minimum of 30 ECTS for the training component, however, several PhD Programmes abroad have a 60-120 ECTS requirement, normally within a longer programme duration.

The PhD regulations of NHH specify a minimum of 45 ECTS for the training component. Following the comments of the 2016 Evaluation Committee, in 2018, the Research Committee recommended that specialisations could have differing minimum requirements (case 16/18)[8]. Four specialisations require 45 ECTS points, while two specialisations, Economics and Finance, have implemented a requirement of 60 ECTS for their PhD students to complete the training component (see Section 4.2 below).

In line with the discussion in Section 4.1, the programme evaluation calls for a subsequent review of the NHH PhD Programme total ECTS course requirements, considering the implications for programme quality, comparisons with international standards, and the implications of having variations within the same programme.

4.2 ECTS per Course

Following the 2016 programme evaluation, special attention was drawn to the ECTS of several individual courses (mainly within the Economics specialisation). It seemed that the required work effort of several courses was higher than the assigned ECTS, indicating that the courses in question offered deflated points. In total, the credits of the current course requirements within Economics were assigned 45 ECTS, however, in effect, the course work comprised nearly all the students' time the first year. Based on this, decisions were made that the full workload should persist, however, while the corresponding ECTS were adjusted to reflect the correct number of 60 ECTS. This is also the background for why the ECTS requirements in Economics, and subsequently also Finance, were adjusted to 60 ETCS.

Following this process, procedures are followed to ensure that the assigned ECTS per course correctly reflects the workload, and the ECTS of each course is approved by the Vice Rector for Research.

4.3 Proportion of Mandatory Courses

The Evaluation Committee observes that the large variation across specialisations in the number of mandatory courses is yet another aspect contributing to the diversity within the programme, confer Appendix 10.11 which lists the mandatory courses in each specialisation at the time of the background report.

In 2021, the Research Committee (Case 3/21) discussed several aspects of the mandatory courses; - whether the high share of mandatory courses reduces student's flexibility too much relative to the needs of their research topic; - whether the high share reflects a mending of "deficiencies" in their pre-doctoral education; and whether the high share results in too much pressure on the students. The committee concluded that the flexibility to tailor the different proportions of mandatory courses is needed to meet the diverse needs of the specialisations.

The process of defining the framework for mandatory courses is, however, ongoing and several issues are discussed, such as renaming course categories ("mandatory courses" being renamed "Courses approved by the Vice Rector for Research", and "elective courses" being renamed "Courses approved by the department"). This emphasizes the decision making regarding the course portfolio. The change was followed by a revision of the PhD contract to

[8] The Research Committee also requested that course sizes should stay within 7.5 ECTS for easier exchange between specialisations.

clarify the rules for retaking courses; "Courses approved by the Vice Rector" can normally be retaken only once for satisfying grade requirements. However, the framework with respect to the proportion of courses within each category is not clear and necessitates further discussion in accordance with the observation of the Evaluation Committee observation. Several specialisations also have been in the process of changing the courses within the two categories.

4.4 Course Quality

All new PhD courses at NHH are subject to the approval of the Vice Rector for Research with respect to course content, course description, the course portfolio, etc. Course descriptions also are reviewed each semester as part of quality control before the course offerings are published on the NHH PhD courses webpage, in Studentweb for the internal students, and in the "Søknadsweb" list of available courses for external students who want to take courses at NHH.

Through programme evaluations, progress reports, and dialogue meetings, courses have systematically been discussed for continuous improvement. Regular course survey evaluations, as applied at lower levels, have previously been used only at a small scale, due the problems of anonymity in small PhD courses.

The 2018 NOKUT report, however, suggested that NHH might consider increased use of course survey evaluations. Consequently, the issue was discussed in the Research Committee (cases 28/18 and 8/19), and it was decided to implement a pilot of survey evaluations for regularly offered PhD courses which are typically larger in size. In 2021, 20 courses were evaluated, with a response rate of 44% (85 respondents of total 194 participants). Aggregated results are presented in Table 1 (individual course results are not reported, since several surveys are based on less than five respondents). The grading scale is 1-5, where 5 is the highest score. The average score ranges from 3.0-5.0 for all questions. The course evaluation scheme is, however, still in the making to find the best form for quality assurance and student feed-back on courses.

Table 1 Aggregated results on evaluation of PhD courses in 2021 (2020 results in parentheses)

	Q1: Overall, how satisfied are you with this course?	Q2: How useful/relevant was the content for your PhD degree?	Q3: How satisfied are you with the pedagogical form of this course?
AVERAGE	4.2 (4.1)	4 (3.8)	4.2 (4.3)

In the PhD Student Survey (Appendix 10.3) the students were asked to assess PhD courses they had completed, both internal and external courses (77% had attended courses at other institutions). The survey indicated that the PhD students generally were satisfied with both in-house courses and external courses, with a mean score of the overall quality of 3.6 and 3.9 respectively, on a five-point scale.

4.5 Course Supply and Demand

In 2021, a total of 43 PhD courses were offered: 17 in the spring semester and 26 in the autumn semester. Table 25 in Appendix 10.11 shows the courses offered in 2021, including the ECTS credits per course, the number of students registered for assessment in the course, and the corresponding total ECTS per course. The PhD programme typically requires substantially more resources per student compared to the bachelor's and master's level. This is mainly due to lower student numbers in courses and much more thesis supervision. The Evaluation Committee, however, notes that *"the size of the yearly PhD intake is adequate which will enable to provide critical mass for common courses (10-15 students) and even for the more specialized courses (3-5 students)"*.

The departments report in-house cooperation on courses, as well as cooperating with other universities and business schools and using existing PhD networks. This being said, a continuous question of interest is how the training programme could be executed even more efficiently, as well as the adequacy of course supply.

Adequacy of Course Supply

Several departments report that they allocate considerable resources to the PhD programme. Due to the heterogenous nature of several of the specialisations, a large proportion of the course portfolio is dedicated to basic topics and methods of the field, with a smaller range of specialised courses. However, most departments have a deliberate policy of encouraging students to participate in specialised courses offered outside NHH, nationally as well as organised by (or in collaboration) with international academic institutions.

The PhD Student Survey (Appendix 10.3) indicates that the opportunity to sign up for external courses was seen as good, with a mean score of the overall quality of 3.9 on a five-point scale. However, in an open-ended question, 72% reported that there were courses they missed at NHH, covering methodology courses as well as more specialised topics in economics and business administration.

Core Courses and Departmental Cooperation on PhD Courses

The Evaluation Committee dwells upon the possibility of increased standardisation as well as more departmental cooperation on PhD courses: *"Also, a trade-off between efficiency (common courses) and customization should be studied."*, and *"Gains in resource allocation efficiency could be realized by offering some common core courses"*. The evaluation report brings forth several interesting suggestions and highlights important considerations:

- *"Most, if not all, students (from economics, finance, accounting, business, strategy, and management) should have a solid basis for empirical research and possibly take courses such as Econometrics 1 and 2. This would mean that most students would have a common core of competences and would get to know one another better, which may lead to collaborations and a research culture whereby students can help one another for the consecutive years. Some departments could also share more courses (which is already done to a limited degree); e.g., a Microeconomics 1 course could be useful for many of the above departments. Having a common core would not undermine departments' freedom to offer field-specific courses, such as a methods course to cater to the specific needs of each discipline. Exceptions to a common core would be a) students in management science/operations research who need a different type of methods courses and b) students from intercultural communication (although their need to use of statistics* *could warrant attending Econometrics 1, especially if some of these students were to aspire to collaborate with researchers of other departments considering that textual analysis is nowadays a standard research tool in management and economics).”*

National and International Cooperation on PhD Courses

A high-quality training component is of course a requisite for a high-quality PhD programme. An issue is, however, whether national or international cooperation on PhD courses can improve quality, as well as constitute a more efficient way of providing courses, especially within the smaller academic fields. NHH is contributing to national initiatives of such cooperation. Also, several of the smaller academic fields encourage student attendance in international courses.

PhD students at NHH may also participate in courses provided by or in collaboration with other institutions, and several PhD students from other institutions attend PhD courses at NHH. During 2008-2016, NHH hosted a national researcher school covering most topics of the NHH PhD programme. The researcher school was financed by the Norwegian Research Council. Currently, there is currently a sector discussion of how to revive a national cooperation related to PhD courses.

4.6 Sustainability

NHH’s mission *“Together for sustainable value creation”* highlights the importance of sustainability in all activities of the school, where sustainability is incorporated in the learning goals of all study programs. Learning Goal 3 of the PhD programme is that *“Graduates demonstrate insight and awareness of sustainability issues in their research fields”*, more specifically that the candidate *“candidate can relate research in their field to sustainable value creation”*.

Following the input from learning goal assessments (see Appendix 10.16) as well as discussions in the Research Committee, the following measures are being introduced:

- *Explicit course learning outcomes:* Sustainability will be emphasized in the learning outcomes descriptions in courses where it is included from fall 2022 and forward.
- *Seminars on sustainability:* Seminars on sustainability will be held early in the PhD programme, starting April 2022.

The first PhD seminar on sustainability, *“Together for sustainable value creation – in the PhD programme”* will take place April 2022, and will be common across specialisations, and be followed up by more field-specific seminars on sustainability. The first seminar is mandatory for the 2021 cohort, although all PhD students are encouraged to participate.

4.7 Other Aspects of Training - Generic Skills

In the programme, the student also acquires a large set of generic skills. Aside from the obligatory course in pedagogy, for the generic skills there is no systematic organised offer, however, seminars may be organised by the departments. The PhD Student Survey (Appendix 10.3) shows that the students in an open-ended question report that they missed more guidance on generic skills, examples noted were:

- academic writing, including how to develop a paper, write abstracts, and deal with revisions from journals,
- presentation skills, including how to deal with feedback on own work from faculty and peers,
- how to communicate in media, including newspapers,
- how to prepare for public defence, and
- career guidance.

While this indicates that more guidance is welcome in these areas, several departments report that they to some extent provide guidance in areas of e.g., presentation training, academic writing training, guidance to apply for external funding.

4.8 Efficient Administrative Processes

Some of the main developments related to course administration of PhD courses are listed below.

Balancing Needs of Flexibility in Course Planning

Traditionally, the scheduling of PhD courses and exams has been managed more decentralized and flexibly than at the lower levels of the bachelor's and master's degrees. Due to the low number of students and nearness of faculty, this has allowed the departments the flexibility of tailoring the timing of courses and exams to ongoing activities at the departments. However, this also poses some repeating challenges. Frequently, important course dates are set very late resulting in administrative and coordination problems, as well as low predictability for students. More seriously, it makes it more difficult to ensure that we uphold regulations, for instance with respect to assessments/examinations. This was discussed in the Research Committee in 2021, and there is an ongoing process of merging PhD courses into the normal scheduling of courses followed at the lower-level programmes.

Implementation of Web-Portals

The last five years the PhD programme has implemented several web-based portals together with the Bachelor and Masters' programmes. Use of the portals have contributed to more efficient processes, while also contributing to quality assurance.

- Course Planning on the NET (EPN) is a tool for editing course descriptions and quality assurance and approval. When the courses are approved, they are transferred to the Common Student system (FS), and thereafter published on the PhD courses webpage. Administrative users, the course responsible, PhD coordinators and the Vice Rector for Research all have access to the system with different roles in this process.

- Fagpersonweb is a support tool for teaching and grading. In the web application the where academic staff can perform procedures and tasks such as registering and submitting course approvals, while also providing a summary of your roles in courses, seminars and programmes of study, including your supervisory tasks.

- Studentweb has been implemented for the PhD students, enabling the students to register and withdraw for courses and assessments, as well as having access to their obtained grades.
- Søknadsweb was implemented in the PhD programme in 2021. External students who want to take PhD courses offered at NHH, apply by using this portal. Use of the portal also enabled a more efficient process, as well as an efficient implementation of application deadlines (1 February and 1 September for the spring and autumn semester respectively). However, if requested by the course responsible, special deadlines for course applications may apply if necessary.

5 THE THESIS COMPONENT

The main part of the PhD programme is the doctoral thesis, where the candidate is dedicated to doing independent research under the supervision of a supervisory committee. The PhD thesis constitutes an independent scientific work of high academic standards; that meets the international publication standards within the subject area with formulation of research questions, definition of concepts, the methodological and theoretical basis, documentation, and form of representation. There was a total of sixteen PhD defences in the PhD Programme in 2021. A list of defences for the last five years is enclosed in appendix 10.12.

5.1 Thesis Format

The majority of PhD theses are written as a compilation of several papers, together with an explanation of how they are related. The monograph format is allowed, but seldom used. The requirements of the thesis follow from section 5-7 of the PhD Regulations. As these are somewhat general, there are minor differences in interpretation across the departments, e.g., as to the number of papers in the thesis, requirements as to co-authorship, standards for the introductory chapter, as well as publication goals. While this allows flexibility tailoring to the needs of the specialisations, it may also create uncertainty for the students as to when the implicit criteria are fulfilled. Several of these issues have been discussed by the Research Committee, clear and coordinated standards have, however, yet to be developed in all areas.

5.2 Thesis Quality and Publication Results

The Evaluation Committee emphasizes that international visible quality standards (in addition to placement, which is the topic of Chapter 7) are *"publications of students in the period of the PhD research and within 6 years subsequent to graduation; a quality signal would also be R&Rs (rewrites and resubmissions) during the PhD"*. This view is shared with most departments; *"arguably, the best quality measure is publications.*"

Within the four-year time of the study period, there is, however, a trade-off between throughput and achieved publications. The quality requirement of the submitted PhD thesis is thus that the thesis meets the international publication standards, and consequently, not that the publications are achieved prior to thesis submission. This being said, most departments stress the importance of publishing in peer-reviewed international journals. The Evaluation Committee also emphasizes the importance that PhD students are well-acquainted with the quality hierarch of journals in their research area: *"From the start, students should be made aware what the top and very good journals are in their field and how to strive towards publications at that level"*. Currently, there is no overall track record for NHH of publications by PhD graduates, though some departments track publications both for active students and for graduates.

It should also be noted that quality assurance of the thesis occurs in all stages in the process of writing the doctoral thesis; e.g., in the assignment of the supervisor committee; in the midway evaluation; in paper presentations for the department and at academic conferences; in the evaluation of the submitted thesis by the appointed Evaluation Committee for the thesis; at the public defence. The Thesis Evaluation Committee is appointed by the Vice Rector for Research and consists of at least three members: - one member from NHH (who has not contributed to the thesis), and two external members where at least one of the committee members does not hold a principal position at a Norwegian institution.

For the NHH PhD programme, the rejection rate is low, although non-zero, as theses that do not meet the quality standards inevitably are rejected, as they should. In 2021, in total twenty-two theses were submitted for evaluation, of which 15 theses were found worthy of public defence, six theses are still in the process of being evaluated, and one was found not worthy of a public defence in its present form.

5.3 The Supervisory Committees

The supervisory committee for the PhD Student consists of at least two members. Almost all candidates have an external co-supervisor (i.e., a member which is not employed by NHH in a full-time position). Several candidates have an additional internal co-supervisor. External co-supervisors are often recruited from the research network of the faculty research group within the research area; or from the department's pool of Professor IIs. They may also host a research visit for the candidate. Some candidates use their external co-supervisor very actively and co-author papers with them, while other external co-supervisors mainly provide quality control.

The departments place great efforts in assessing the qualifications and merits of faculty members when appointing supervisors. The Evaluation Committee stresses the importance of research active supervisors; when *"the supervisor is not research active (defined as not publishing in top or subtop level journals – give and take the top 8 journals of a broad field such as econ, finance, accounting, strategy etc.), the student may be at a disadvantage"*. The departments have in recent years also increased their efforts of taking into consideration the availability and interests of supervisors when hiring new PhD students, in this way also ensuring the capacity of relevant supervisors in the recruitment process.

From the meeting the Evaluation Committee had with NHH PhD students from different departments, the committee observes that *"students seem happy with their supervisory teams"*. In the PhD Student Survey (Appendix 10.3), the PhD students overall seemed satisfied with the supervision they received, especially from their main supervisor; on a five-point scale (where five is the most satisfied), the mean scores were 4.6 and 4.2 for the main supervisor and the co-supervisor, respectively[9].

Pairing Students and Supervisors

The Evaluation Committee also observes different models in pairing students and supervisors: *"Some departments offer a PhD position which comes with a defined research project and a supervisor, while other departments allow students to explore the various subfields of a*

[9] The respondents also rated, on a five-point scale the following statements: "*The supervisor responds timely to my request"* (mean score 4.6); *"The supervisor has good knowledge of current research within my thesis topics"* (mean score 4.4), "*The supervisor provides useful and constructive feedback"* (mean score 4.6).

research area, possibly with the help of a mentor, such that the students can choose their own research topic as well as supervisor." The Evaluation Committee characterizes the first model as a top-down approach, and the latter model as a bottom-up approach, noting advantages and disadvantages of both approaches:

- Advantages Top-Down Approach: *"the offer of a research topic may be efficient and induce a substantial time gain in the PhD process"*.
- Advantages Bottom-Up Approach: *"when the student makes a more informed choice, he or she will have followed several courses which have exposed her/him to the various literatures in her/his field. In addition, he/she will have had more time to brainstorm with her/his mentor and various members of the department about potential topics. Importantly, the student will have had more time to think about with whom he/she wants to work. For successful PhD research, character compatibility between student and supervisor is quite important. The bottom-up approach is allowing the PhD-students to have ownership of their own PhD-project from the very beginning as it is not a project that has been formulated by a supervisor"*.
- Disadvantages Top-Down Approach: *"the student is confined to specific research and is not exposed to other potentially interesting areas and topics which may be more fitting her/his interests and strengths. Also, the student may join a project of a supervisor such that his/her input (in the initial phases or even beyond) may be that of a mere research assistant"*.
- Disadvantages Bottom-Up Approach: *"a starting researcher is usually not aware of what the state of the art is in a specific research area or what research directions are more promising. Moreover, searching a topic may take time for a starting researcher. It may also happen that the research topic chosen by the student does not match well with the interests and competences of the potential supervisors. In this latter case, the initial phases of the work may be time consuming and, given the short duration of the PhD programme, the result may be a delay with an impact on the quality of the thesis."*

While there are advantages and disadvantages of both approaches, the committee observes that most programmes in the benchmark universities take a bottom-up approach: *"PhD students take the course work and during this phase they explore ideas, write term papers under the supervision of a mentor or initial supervisor, brainstorm with various faculty members to choose at the end of the first (or second) year a supervisor (or supervisory team) and can embark on their first PhD paper."*

5.4 The Training of Supervisors

The departments practice a scheme of using the co-supervisor role as a training platform for inexperienced, but well-qualified faculty members. This gives them valuable experience in supervision and prepares them for being main supervisors in the future. In some cases, experienced internal supervisors carry out the role of a co-supervisor, supporting a relatively inexperienced main supervisor. The PhD coordinators at the departments also provides guidance and support to the supervisors.

The 2018 NOKUT report on the PhD programme stated that the trainee scheme involving PhD supervisors is a good arrangement, but also recommended offering regular courses in supervision in addition. The question of whether NHH should offer a PhD supervision course for supervisors was thus discussed in the Research Committee (Case 24/20), and in 2021, a 50-hour course "Fundamentals of PhD Supervision" was offered to faculty. The course aims to provide knowledge and skills that support security for new PhD supervisors and offer experienced supervisors some useful tools and opportunities to share best practices. Approximately 20 faculty members attended the course, and the course was well received by the participants. The course will be included as a part/module of the overall programme for basic pedagogical competence at NHH.

5.5 Improved Guidelines Evaluation Committees

The role of the evaluation committee is to assess the thesis, the trial lecture and the public defence of the thesis. It normally consists of at least three highly qualified members, where both genders are represented, at least one committee member is not be affiliated to NHH, at least one of the committee members does not hold a principal position at a Norwegian institution, and all members of the committee hold doctoral degrees or an equivalent qualification. Note that this implies that the majority of the committee consists of external members.

Impartiality is crucial in the selection of evaluation committee members. For example, supervisors and others who have made significant contributions to the thesis cannot be appointed to the evaluation committee. Guidelines for assessing and documenting the impartiality of the Evaluation Committee have been discussed in the Research Committee several times (Case 10/19 and Case 14/21). In 2020, guidelines for assessing impartiality were revised to include the obligation of the department to submit a formal impartiality statement regarding the proposed committee members to the Vice Rector for Research. To further improve this process, in 2021 it was decided to obtain a declaration of impartiality directly from the proposed members of the evaluation committee. An online form has been developed and implemented early in 2022.

Guidelines regarding the affiliation of external members were discussed in a separate case in the Research Committee in 2021, to further clarify the PhD Regulations in this respect. The Research Committee supported the suggestion to follow the "Guidelines for quality assurance of examinations and grading at NHH" and be in accordance with section 4.2 (External Examiners).

6 STUDENT FOLLOW-UP

As a Research Scholar, the PhD student is also an employee, most of whom are employed at and affiliated with a department at NHH[10]. This makes the learning and working environment of the PhD student somewhat different from that of the lower-degrees' students. As an employee, the PhD research scholar is offered annual appraisal meetings (*"medarbeidersamtaler"*) at the department; they have a supervisory team (cf. Section 5.3); they are followed up by the PhD coordinator at the department; and the academic work and progression is closely monitored with clear milestones.

The learning and working environment of the PhD students is the topic of Section 6.1, while Section 6.2 addresses the monitoring of academic progress. The follow-up by the supervising committee also is important in this respect, for this we refer to Chapter 5. Appendix 10.13 provides background information on milestones and procedures for progress follow-up.

6.1 Learning and Working Environment

The students are an integrated part of the departments, working in the same premises as the other faculty, thus allowing for a close integration of PhD students and faculty. The office space of the PhD students is an open plan office environment, recently modernized (2013 and 2020).

All departments stress the importance of integrating the PhD students in an active research environment at the department. This is done, for example, by

- *Participation in the department's research activities:* This includes participation in faculty seminars, and PhD students are encouraged to present their own research at the seminars. Supervisors are also encouraged to introduce the PhD students to their research networks. The PhD Student Survey (Appendix 10.3) shows that 70% of the respondents have presented their research work at the department, 33% at other national institutions, and 38% internationally, moreover, most students found the presentations to be useful.
- *Co-authorship*: Students are often encouraged to write the first articles together with their supervisor or co-supervisor. Especially for the first paper, such collaboration can be an excellent way to learn all the steps that are involved in the production of publishable research.
- *Research Groups/Projects:* Joining a research group or project incentivises the process of doing research and collaboration, often increasing the rate of paper production for all parties involved. In total 80% of the respondents of the PhD Student Survey were members of a research group, where most students, but not all, found it very valuable (mean score of 4.1 on a five-point scale, where five is very high value).

[10] Others may be employed at another research institution or company, however, residing at NHH in part of their PhD studies. The measures for following-up academic progression are the same for this group.

In the PhD Survey, several of the respondents also highlighted the work environment as a benefit of the PhD work, in this referring to e.g., a highly competent faculty, a supportive environment, and being part of good research groups. A rewarding feature highlighted by one of respondents was *"...to be considered as a faculty member and to be involved in any kind of discussion without any hierarchical levels ..."*.

PhD students at NHH have possibilities to apply for funding for the attendance to international conferences, as well as funding of research stays at research institutions abroad. In their self-assessment reports, several departments emphasize that they encourage students to avail themselves of these opportunities. This is also noted by the Evaluation Committee; the departments *"ensure that students have sufficient international exposure as students are allowed to spend time abroad if they wish so and that students have a good host when visiting universities abroad"*, and that in *"some departments students are encouraged to spend a period abroad to develop international experience"*.

The Evaluation Committee, however, also warns that a *"A caveat here is that supervision by NHH supervisors should remain close while the student is abroad such that one does not rely too much on the help of the host (in other words, one should avoid that supervision is outsourced to too large an extent)"*

This is also a concern shared by the departments, dealt with as follows by one of the departments: *"However, to avoid delays the candidates need to demonstrate good progress and present an elaborated plan for the stay in advance. Also, a researcher at the hosting institution should be committed to supervision, preferable by working on a co-authored paper. The arrangement has to be fully supported by the candidates' main supervisor and the PhD coordinator in order to be funded. During the stay, the PhD students have to report regularly to their supervisors and the PhD coordinator. Any significant shortage of progress is discussed in the department's leadership group and action is taken if needed. This often implies biweekly or monthly reporting and logging of progress to the PhD coordinator"*.

Onboarding

The departments are well aware of the importance of good onboarding as a key success criterion for the initial progress of the students. Most departments place great effort in the onboarding process, partly in collaboration with the Service Centre, the Office of Human Resources, and the Office of Research Administration. Below follows examples of measures to facilitate onboarding of new students:

- *Welcome letters* are sent to the new PhD students by some departments, with a wide range of information, including frequently asked questions, as well as information on rights and duties, rules and regulations.
- *Welcome meetings* are held by the departments, often including presentations by PhD candidates already in the programme who share their experiences. In addition, the Office of Research Administration invites all new PhD students to a welcome meeting in August/September to inform about practical matters, as well as combining this with a social gathering.

- *Assistance with visa applications,* which is a time-consuming process for the departments' administration, and where the long processing time may lead to severe delays in start-ups.
- *Housing* remains a challenge for new students coming from abroad. Although NHH rents some bed-sits earmarked for new PhD students, the number of these is insufficient for meeting the demand.

The recent years' emphasis on the process has contributed to a better onboarding, for students from abroad, as well as for Norwegian students. The new PhD Association, *NHHdoc,* is acknowledged for the valuable contribution of their buddy programme to the onboarding process (see below). However, the programme evaluation indicates that the onboarding process may benefit from e.g., more exchange of best practice, better coordination between departments and central offices, and more efficient routines.

Seminars on Psychosocial Dimensions

The PhD Research Scholar participates in the departments' social life. In the PhD Graduate Survey (Appendix 10.4), it was suggested that there should be more social events, including events for discussing research in a social setting, and more arrangements for the PhD students across departments. It was mentioned that the PhD study period is tough in several respects, and that the PhD students often felt lost, stressed and alone. They believed that more social events would help reduce the stress.

As a measure to improve the psychosocial welfare of the PhD students, NHH and the occupational health service developed and organised a seminar in 2019 and 2020 with a focus on the PhD students' mental health and stress management. The seminar *"Coping competence – be a scientist in your own life"* was well received and is something NHH would like to offer the PhD students on a regular basis. In 2021, a seminar on *"Getting Things Done"* was offered digitally to the PhD students. This seminar was also well received by the students.

NHHdoc

In August 2020, some PhD students took the initiative to launch an independent PhD association for research scholars at NHH, *NHHdoc*. NHHdoc works to provide a platform for professional, social, and cultural exchange across departments and research centres at NHH. NHHdoc also launched a buddy programme for new international students, where the assigned "buddy" will be an informal point of contact for asking questions and sharing experiences of the life as a PhD research scholar at NHH, and in Bergen. This is an initiative that was very well received by the new PhD students. NHH sponsors the association.

Consequences and Adaptations due to the Pandemic

In the PhD Student Survey (Appendix 10.3), the Covid-19 pandemic was frequently reported as an issue, both when asked about barriers to finish their PhD on time, and when asked about frustrations and challenges in their PhD work. They found that the pandemic made it difficult to plan ahead. Moreover, the inability to travel on research stays and conferences was reported to cause delays on their research work, as well as in developing networking. Working from home was not optimal and resulted in lower productivity, and some reported they felt more stressed, lonely, and detached from the work environment and support they normally had when they were at the office.

The departments had a particular focus on the PhD students during the pandemic. For instance, the PhD students were prioritised by the departments when the school had restrictions on number of staff allowed on campus. Still, for long periods of time, the Covid-19 pandemic resulted in extensive work from home offices, inducing a very difficult social situation for many PhD students, especially for those with a limited social network in Bergen.

The Office of Human Resources is in charge of scholarship extensions due to Covid-19. The PhD students received information from the Office of Human Resources that they might be entitled to an extension of their scholarship if Covid-19 had been a hinderance to progress. Extensions were granted on the basis of written applications.

The Vice Rector has had meetings with the PhD coordinators to discuss issues related to Covid-19. The main focus was on PhD courses, whether they would be run as planned, and if not, whether this would have significant implications for the PhD students' progression. All PhD defences were held as planned, regardless of the pandemic. The defences were either fully digital, or a hybrid version where the evaluation committee participated via Zoom, and the candidate was at campus. In addition, a certain number of people were allowed to be on campus, however, depending on the covid measures.

6.2 Student Follow-Up: Monitoring Progress

The proportion of PhD candidates that completed their PhD degree within six years (the official measure reported in the NHH Annual Report), has substantially improved since the last programme evaluation. Since 2017, this proportion has been well above 70%, and thus above the average rate of the sector from 2017-2020[11]. Further details on throughput are shown in Appendix 10.14.

Supervisors, as well as the department PhD Coordinators, follow up the students on an individual basis throughout the year. Recent years' substantial emphasis on thesis work and progression, has however, resulted in several further measures for improvement. This, for example, includes even closer follow-up of the individual PhD students at the departments; more involvement of PhD students in active research groups; more focus on the qualifications of supervisors; and new administrative procedures for follow-up (regarding the latter, see Appendix 10.13). The efforts have contributed to significant reductions in the average time of completing the programme.

Some the main features of the last five years' development with respect to the monitoring progress are the following:

- The 2017 revision of both the PhD regulations and the PhD student contract further emphasized progression; by means of clearer progression milestones (completion of

[11] The proportion, however, decreased to 55% in 2021. As the measure is based on the PhD students entering the programme six years earlier (normally 20-30 students per year, or even lower), the delays of even a few students may greatly affect the measures, as in this case, where several PhD students had had long legally justified leaves of absence. The numbers quoted for 2017-2020 are therefore more representative.

training component, mid-way evaluation, other individual milestones), and by a revised scheme for the follow-up of the individual student. These milestones are thoroughly followed up by the departments, however, with slight departmental variations in chosen procedures, requirements, and timing of milestones.

- In 2018, a new progress reporting system was in place. The system has facilitated and improved the monitoring of progress. The reports from the system include up-to-date information about e.g., the courses students have passed, milestone progression, updated contract periods (due to sick-leaves or other permissions), and the student's and supervisor's annual assessments of progress. These reports allow for more efficient reporting, also improving the annual PhD progress meetings which are held at each department. In the meetings a combined team from the department, the Office of Human Resources, the Office of Research Administration, and the Vice Rector for Research assess the progress and together discuss appropriate measures for each student.
- At the same time, the Office of Research Administration improved the routines of notifying students and departments of course progress. Quicker notifications from the Office of Research Administration to the department about students with insufficient grades, enables the departments to keep a closer track and suggest action when needed.
- In 2020, the Office of Research Administration, and the Office of Human Resources cooperated to prepare guidelines for how departments, supervisor committees, the Office of Human Resources, and the Office of Research Administration should deal with situations where the PhD student faces challenges in their PhD education. Such situations may, for example, be issues related to lack of progress, as well as serious instances of cheating or misconduct. The initial focus is always on how to resolve the problems and help the student back on track, however, the guidelines also address in detail how to deal with situations that may lead to voluntary or forced termination of the PhD education and the employment contract.

In interpreting throughput rates, one should bear in mind that there are several well-grounded reasons for why the PhD students use more than four years from contract start to thesis defence: In some departments, as a policy to enhance job-market competitiveness, deliberate measures are taken to extend the programme with a fifth year (e.g., by entering into a 20% absence of leave, stretching the funding and study period to five years; or by the provision of 5th year stipends for very promising students). Other reasons are, for example, legally justified parental leave and sickness absence periods.

7 PLACEMENT AND CAREER SUPPORT

NHH PhD graduates continue their career along two pathways; in academia and outside academia in businesses and companies in the private and public sector. The new NHH strategy for the PhD programme states that *"NHH's PhD programme shall be of high international quality,"* and that *"Graduates will succeed in the competition for scholarly positions at recognised international institutions and be sought-after by knowledge-intensive companies outside of academia"*. The importance of career support is also acknowledged: *"NHH shall offer better career support for PhD students to give them a better chance of succeeding in the competition for scholarly positions at recognised national and international institutions, and for prominent positions in business and society"*.

Placements

The majority of the NHH PhD graduates develop an academic career, however, an increasing number take on leading positions in management, consultancy or in larger organisations. Some key numbers are the following (see Appendix 10.15 for more statistics).

- *Placements in academia versus other institutions:* During 2016-2021, 68% of the PhD graduates, i.e., 69 graduates, continued their careers in academic institutions, the remaining starting in private and public companies.
- *Placements in highly recognized schools*[12]*:* During 2016-2021, near 13%, i.e., 13 of the graduates had a placement at highly recognized schools (not including NHH/SNF). In other words, 19% of the graduates who pursued an academic career continued at highly recognized schools.
- *Placements in NHH/SNF*: During 2016-2021, near 24%, i.e., 24, of the graduates, started their first job at NHH/SNF. In other words, 35% of the graduates who pursued an academic career continued at NHH/SNF.
- *Country of first job:* The greater part, 70% of the graduates 2016-2021, obtained their first job in Norway, while 28% started their careers abroad. Note that even though the PhD programme at NHH enjoys a highly international student body, a considerably large part of the non-Norwegian graduates continues to work in Norway: 92% of the graduates with a Norwegian citizenship, and 50% of the graduates of other nationalities, obtain their first job in Norway.

The placement records for the 2021 PhD graduates are as follows: Nine graduates continued their academic career (two at BI Norwegian Business School; Western Norway University of Applied Sciences; University of South-Eastern Norway; Institute for Social Research; Statistics Norway; and three at NHH Norwegian School of Economics). Seven graduates continued their career in other institutions (Factworks Gmbh; Tryg Forsikring; Equinor; EY;

[12] In this respect, the definition of highly recognized schools is based on the 2021 Shanghai Global Ranking of Academic Subjects (GRAS), which is a combination of the top 200 from three lists covering Economics, Business Administration, and Finance. In total the list contains around 300 schools. NHH is included in the GRAS list, however, excluded in the numbers reported above.

Telenor Research; Finanstilsynet; Oslo Economics). Table 2 shows selected placements the 2016-2021.

Table 2 Selected Placements 2016-2021

Academic Placements	Private and Public Company Placements
BI Norwegian Business School (Norway)	Arvato Financial Solutions (Germany)
Business School Lausanne (Switzerland)	Bergen Kommune (Norway)
Centre for applied research at SNF (Norway)	Central Bank of Ireland (Ireland)
Economic and Social Research Institute (ESRI) (Ireland)	CEZ Trading (Czech Republic)
EDHEC Risk Institute	DNB (Norway)
Hanken School of Economics (Finland)	Daayitwa (Nepal)
HEC Paris (France)	Equinor (Norway)
Hitosubashi University of Tokyo (Japan)	EY (Norway)
Inland Norway University of Applied Sciences (Norway)	Factworks GmbH (Germany)
Institute for Fiscal Studies, London (England)	Finanstilsynet (Norway)
Institute for Social Research (Norway)	IMG Nord (Norway)
King Edward's School, Birmingham (England)	KPMG Australia (Australia)
Kristiania University College (Norway)	Norwegian Church Aid (Norway)
NHH Norwegian School of Economics (Norway)	Norwegian Petroleum Directorate (Norway)
NORCE Norwegian Research Centre (Norway)	Norwegian Red Cross (Norway)
NOVA SBE (Portugal)	Oslo Economics (Norway)
NTNU (Norway)	Oxera Consulting LLP
RMT University Melbourne (Australia)	PwC (Norway)
Southwestern University China (China)	Sbanken (Norway)
SSB (Norway)	Sparebanken Vest (Norway)
Tilburg University (Germany)	Steem1960 Steensland Shipbrokers (Norway)
UC Irvine The Paul Merage School of Business (USA)	Tax Norway (Norway)
Umeå University (Sweeden)	Telenor Research (Norway)
University of Naples Federico II (Italy)	The Swedish Social Insurance Inspectorate (Norway)
Universidad de Antioquia (Colombia)	Tieto (Norway)
University of Amsterdam (Netherlands)	Tryg Forsikring (Norway)
University of South-Eastern Norway (Norway)	
University of Stavanger (Norway)	
University of Sussex (England)	
VATT Institute for Economic Research (Finland)	
Vrije Universiteit Amsterdam (Netherlands)	
Western Norway University of Applied Sciences (Norway)	
Østfold University College (Norway)	
Aarhus University School of Business (Denmark)	

Relevance

In NHH's quality assurance system, the term *"relevance"* refers to whether the study programme, the teaching and forms of assessment are composed with a view to educating candidates with the knowledge, skills and expertise that the labour market needs, that stand the test of time, and that form the basis for lifelong learning.

PhD graduates who completed their public defence in 2016-2020, were invited to participate in a survey about the PhD programme (see Appendix 10.4). When asked about relevance of their PhD in relation to their current job, 85% of the respondents answered that their PhD degree was highly relevant.

The term relevance also refers to the knowledge, skills and expertise that the *labour market* needs. As there are two major pathways for the PhD student, we will briefly in the sections below dwell upon relevance within both career paths.

Placement and Career Support in General

Career support and guidance helps the PhD student in their choice between an academic and non-academic career path, and also provides guidance for succeeding in the pathway of their preference. Consequently, career guidance is also an important tool for achieving NHH's objectives of placement.

Several departments have formally appointed placement officers to assist in providing career support. Career guidance in most departments is also done by the PhD coordinator and/or the head of the department, and career guidance is normally considered an integral part of supervision. Several departments, but not all, have in recent years enhanced their efforts in placement and career support, in particular regarding international job markets. The choice of measures for placement and career support, as well as the emphasis on international job markets, however, varies across departments.

Placement and career support has several times been on the Research Committee agenda. An overall NHH policy on placement and career support has, however, not been developed, as an approach tailored to the varying needs of the departments has been preferred. Following recent years' increasing attention to the subject, a more systematic NHH approach may be considered, with a clearer placement and career support strategy, exchange of best practice, and more systematic overviews of where the candidates end up. Placement and Career Guidance within the academic and the non-academic paths are the topics of Section 7.1 and Section 7.2.

7.1 Placement and Career Support: Academic Career

The evaluation committee stresses that given NHH's ambition for *"…international recognition and the possibility to signal research quality by means of the quality of the PhD programme, international quality standards should be adopted…"*. As noted in Section 1.2, the main standards in this respect are the quality of publications, and the placement of graduates in the best Norwegian and European universities, the latter of which is the topic of this chapter.

The committee acknowledges that: *"Obviously, one cannot expect that all students be placed at internationally recognized universities because*

- *a. some students may prefer to work for a Norwegian university and/or are not mobile (e.g., for family reasons),*
- *b. some may prefer to work in a non-academic environment, and*
- *c. some may not produce, despite a thorough ex-ante selection and close supervision, research that is of high quality".*

Taking this into consideration, they point out that *"If a department would be able to place yearly one or two students out of a cohort of 5 students at a benchmark university, this would be an excellent result"*. Moreover, *"For international recognition, only the right tail of the graduate placement matters."* In other words, the Evaluation Committee holds an average of 20%-40% placement at internationally recognized universities as an excellent result. In this respect, the NHH statistics above indicate a potential for improvement.

The new NHH strategy for the PhD programme emphasises international quality of the PhD programme, while at the same time acknowledging the dual pathways of career. The making of a clear placement strategy and career support action plan for the PhD programme thus implies that several aspects should be considered, for example - how should "highly recognized schools" be defined; - what are the implications for the balance of the dual pathways of career; - and what are the implications for the placement strategy with respect to the recruitment policy of the school[13].

Career Guidance – Academic Pathway

Most career support is today carried out at the department level. In recent years, most departments have increased their efforts in career support and placement for PhD graduates, though the measures vary across the departments. Due to differences within the academic fields, the Research Committee in 2020 (Case 23/20) advised that the departments continue their current measures and focus on the particular needs of their students and relevant job market. The list below exemplifies some of the measures carried out by the departments:

- information workshops/meetings early in the programme where the academic job market is presented,
- academic CV writing workshops, and individual website workshops,
- help with writing/framing the job market paper,
- practice in presenting job market papers,
- mock interviews and mock seminars in preparation for the international academic job market,
- provision of financial support to graduating PhDs for participation at job market talks/conferences,
- help with finding suitable reference letter writers both in the department and outside,
- placement pages, showing upcoming and placed graduates
- meetings in which recently recruited junior faculty members, who have just gone through the job market themselves, share their experience with our PhD students.

Several of the measures today carried out by some departments coincide with the advice of the Evaluation Committee:

[13] The NHH recruitment policy is outside the scope of this report. The Evaluation Committee, however, provides some input in this respect: *"Some departments hire their own students which is a kind of behavior that goes against the international standard. 'Inbreeding' would emit a poor signal to the international research community. This policy has been abandoned by the better European universities for about 25-30 years. This went hand in hand with hiring faculty members from other universities with tenure track contracts"*. The self-assessment reports, however, also briefly visit this issue, where some aspects are the following: NHH PhD graduates who stand out as the best qualified applicants are hired. There are Norwegian and European problems of recruiting in some areas, in particular where PhD graduates are in high demand both at universities and in the (well-paid) practitioner fields. One of the departments here note that due to difficulties in attracting senior faculty in the field, part of their recruitment strategy is to attract NHH PhD graduates for postdoctoral work, subsequently qualifying for tenured positions. Other issues mentioned are the national obligations to cover Norwegian areas of research.

- *"It is essential that the PhD students be prepared to the job market by means of mock interviews and by training their presentation skills. This should be organized by the respective departments. It is also advisable that students participate to national and international conferences by the time their go on the job market".*
- *"The job market file should consist of a motivation letter, CV, teaching and research statements, (solo-authored) job market papers, other (solo- or co-authored working papers), teaching (tutorial) evaluations, and letters of recommendation".*
- *"It is good practice that the PhD student (if he or she wants) co-authors with supervisors/other faculty members to learn how to write quality papers. For the international job market, it is preferable that students take a solo-authored paper as job market paper to demonstrate that they can do independent research (unless the solo-authored paper is of significantly lower quality than the co-authored work)".*

Although some departments spend considerable resources on supporting promising candidates in entering the international job markets, this is not the case for all the specialisations. However, all departments express an intention of further developing placement and career support measures.

Challenges of a Three-Year PhD Programme in the International Job Markets

The Evaluation Committee, as well as several departments, have raised the concern that the Norwegian four-year (duty work inclusive) PhD Programme inadequately prepares the PhD students for the international job markets. Here the four-year NHH PhD candidates compete against five-year and six-year PhD graduates, cf. the discussion in Section 2.3. The Evaluation Committee points out potential measures, some of which already are carried out by some departments, though there is not a clear NHH strategy in this respect. Two of the proposed measures, which are possible within the Norwegian model, are:

Five Year Positions:

- An alternative, pointed out by the Evaluation Committee is an extension of the programme *"by offering students, from the start, a longer contract at an 80% salary or adding a 5th year by means of a (teaching) grant."* Moreover, the *"possibility, and the options to extend the duration of a PhD programme should be made available to all PhD students interested in participating to the international job market."*
- Some departments have taken measures for a fifth year. In one of the departments, most students choose to take an annual 20% unpaid leave of absence, in effect extending their study period to five years. Some departments extend the PhD duration to five years by granting a teaching grant.
- The alternative enables PhD graduates to be more competitive on the international job market, however, if a prolonged study period is applied to all students, it would also imply an extended study period for students who plan to follow other career

paths. It should also be noted that the implications for throughput statistics which are followed up the government have not been analysed.

Post-doc Positions for Job Market Preparation:

- The Evaluation Committee observes that: *"Several European universities, Scandinavian and non-Scandinavian, try to solve the 4-year problem by creating post-doc positions whereby the student spends one or two years to do additional research work, and possibly polish the papers written during the PhD, before going on the job market. Some of these students do the post-doc in their home institution, while others do this post-doc period abroad at a top university or a top research group (in a different European country or in North America)"*.

  Here the Evaluation Committee also considers the value of doing the post-doc preparation year abroad: *"A 4-year PhD programme followed by a 1 or 2 years post-doc abroad may make a NHH PhD graduate competitive on the job market if a. the post-doc position is at an internationally recognized university or research group, b. there is some kind of continuity between the research activity carried out at NHH and at the new university"*. While a *"value is often assigned to the diversified experience carried out in two different academic environments"*, there is a risk that *"part of the credit of a good international placement goes to the foreign university and not to NHH"*.

The Evaluation Committee is of the opinion that the use of a post-doc system (where the post-doc is placed abroad) may not work as well as a longer PhD programme for the following reasons:

"a. the commitment from NHH supervisors to continue to supervise and help a student who has graduated may be limited,
b. the commitment may even be lower when the student is at a university abroad (and hence out of sight),
c. spending a post-doc period at a foreign reputable university does not guarantee a substantial effort of this foreign university to help place an NHH post-doc student because placing its own PhD students obviously has priority for this university,
d. the letters of recommendation by the host professor at the foreign university are typically of (much) lower quality than the ones for their own PhD students, and
e. the credit of placing a top NHH student who does a post-doc abroad will not entirely go to NHH but may be perceived as shared with the post-doc host university".

The previous discussion at NHH has set forth the possibilities of strengthening the academic preparation for the PhD programme, for example the Stockholm model (transferring students to the PhD program after 60 ECTS at the master's level, allowing a full four-year of 240 ECTS at the PhD level in addition to the teaching year), or the question raised in the 2020 PhD report of reinventing a Research Distinction Track at the master's level. In the development of NHH's placement and career support strategy, there are thus several considerations to be made.

Relevance – Academic Career Path

The relevance of the NHH PhD programme seems clearly with respect to the academic career path: The PhD programme provides the PhD candidate with the PhD thesis which a prerequisite for entering into academic positions: The PhD thesis constitutes an independent scientific work of high academic standards; that meets the international publication standards within the subject area with formulation of research questions, definition of concepts, the methodological and theoretical basis, documentation, and form of representation.

7.2 Placement and Career Support: Institutions and Companies in Private and Public Sector

While career support for the academic pathway takes the form of more structured measures, the departments' career support for students aiming for jobs in the private and public sectors, help offered in their job search normally occurs on an individual basis.

Relevance – Career Path Institutions and Companies Private and Public Sector

While the skills and knowledge acquired in the candidate's research is important, candidates pursuing this career path often find the generic / transferable skills acquired in the programme to also be of high relevance.

To learn more about the relevance of the PhD Programme, we interviewed six business leaders about their experience with hiring PhD Candidates from NHH. The main reasons quoted for hiring a PhD were analytical skills and the candidates' ability to solve problems. They find that after doing a PhD, a PhD graduate seems less afraid of approaching large problems that seem unsolvable. Moreover, the PhD candidate's ability to read and understand new research fast was pointed out as a valuable asset. Their experience in leading a research project over four years, also makes them attractive project leaders in other fields as well. Though the business leaders did not consider that PhD candidates were more creative or innovative than other employees, they found the PhD candidates to have a more systematic and methodological approach than others, helping in the process of creating new products and services.

8 LEARNING OUTCOMES AND GOALS

The AoL process is a system for continuous improvement of the study programmes. It involves measuring whether there is consistency between the content of a programme and a selection of the programme's associated learning goals. The results from these measures are used for quality assurance and continuous improvement of the programme.

In accordance with the programme evaluation guidelines, Section 8.1 summarizes the AoL work 2017-2019 which includes assessment of the learning outcome descriptions at the programme level; while Section 8.2 reviews further AoL work in 2020-2022, including results and measures taken. Further details are found in Appendix 10.15.

8.1 Assessment of Learning Outcome Descriptions at Programme Level

Learning outcomes are the knowledge, skills and general competence that the student has acquired when completing their education. The learning outcomes for the PhD programme were developed as part of an initiative by the Norwegian Association of Higher Education Institutions (UHR) to implement a national qualification framework at the PhD level. The learning outcomes for the PhD programme at NHH are based on, and in line with, the Norwegian Qualification Framework. They were revised and approved by the Vice Rector for Research (NHH's Research Committee) in December 2016.

For the PhD Programme, eight learning outcomes were adopted covering the areas of Knowledge, Skills and General Competence. These are then further translated into more detailed learning outcomes for the various courses. In sum, the learnings outcomes at the course level should ensure that the students achieve the overall learning outcomes at the programme level. The overall description of the programme, its learning outcomes, and all course descriptions with course learning outcomes are available on the programme's websites. An overview of the eight learning outcomes at the programme level are also shown in the first part of the appendix. In connection with the AACSB accreditation process, the eight learning outcomes were initially adopted as learning goals for the PhD programme. Learning goals are a concept which is part of AACSB's AoL system in which specific goals that are considered important for the school are selected and measured (see Section 8.2 for further details). Learning goals in the AACSB sense may be different from the learning outcomes as defined by UHR, but in the initial period (2017-2019) these coincided for the PhD programme.

To assure that the curriculum supports all of the learning outcomes, a mapping of the different elements in the programme was done in 2017. The curriculum includes elements such as the training component (courses), presentations, and supervision of the thesis work. Here an assessment of the study programme's learning outcome descriptions was conducted, and the conclusion was the study plan covers the learning outcomes (see part 2 of the appendix for details as to how the study plan covers the learning outcomes).

A rubric was developed to assess the learning outcomes, where the thesis and public defence were used as measuring points. During 2017-2019, a total number of 79 responses/rubrics from members of the thesis evaluation committees were collected, corresponding to 34 PhD graduates. The sample size was 71% of the total number of graduates for the period (48 graduates in total). The results indicated that the graduates overall seemed to achieve the learning outcomes of the programme. The results also indicated that for half of the learning outcomes, less than 2% of the graduates were below expectations, while for the remaining goals, none were below. Hence, making changes in the programme did not seem warranted from the data gathered. Instead, the AoL Committee and Research Committee discussed the appropriateness of the wording of the learning outcomes, alternative measuring points, and developing more detailed rubrics for each learning outcome.

8.2 Updated Learning Goals

In December 2019, the selection of learning goals of the PhD programme was updated to correspond to that of the other programmes at NHH. A learning goal describes a knowledge, skill or general competence that students have acquired when completing their education. To measure whether the learning goal has been achieved, the learning goal is translated into measurable learning objectives.

The currently used learning goals and associated learning objectives for the PhD programme are as follows:

Learning Goal - Relevance (LG1): Graduates will be able to apply appropriate theories and methodologies to relevant research problems.
• Learning Objective (LO1a): Can formulate relevant research problems • Learning Objective (LO1b): Can extend theoretical, empirical or methodological insights and apply appropriate analysis
Learning Goal - Communication (LG2): Graduates can communicate their research in a clear and effective manner
• Learning Objective (LO2a): Can present and discuss own research in relevant academic forums • Learning Objective (LO2b): Can produce research papers in accordance with international standards
Learning Goal - Sustainability (LG3): Graduates demonstrate insight and awareness of sustainability issues in their research fields
• Learning Objective (LO3a): Can relate research in their field to sustainable value creation

Appropriate places to measure the learning objectives, measurement points, were identified, and detailed rubrics for the assessment were developed in cooperation with the AoL Committee and the Research Committee.

For learning goal 1 and 2, the initially chosen measurement point for learning objectives 1a, 1b and 2b was the PhD thesis, and the chosen measurement point for learning objective 2a was the public defence, in both cases evaluated by the chair of the thesis evaluation committee. The results from the measurements showed that, for learning goals 1 and 2, no students scored “unsatisfactory”, and a solid share scored “exemplary”. Based on the results, it did not seem necessary to make changes in the programme at the time. Therefore, in the next round, it was decided to move the measurement point to an earlier stage in the programme, more specifically to the midway evaluation. This point of measurement point marks the completion of the training component. As the results expectedly will be lower than at the end of the programme, this measurement point thus also reveals insight as to where additional efforts can be made early in the programme. The measurements for learning objectives 1a, 1b and 2b started spring 2021, and for learning objective 2a autumn 2021.

For the learning objective associated with learning goal 3, the initial assessment was based on a rubric on the results of sustainability assignments to the PhD students. While 72% and 23% scored, respectively, “exemplary” and “satisfactory”, a 5% score in the category of “unsatisfactory” was higher than expected. Therefore, it was decided to implement sustainability more explicitly in the PhD programme, by including a sustainability seminar early in the PhD programme, starting in April 2022 as a pilot.

The AoL work has also included a curriculum mapping of mandatory PhD courses. The mapping demonstrated that the learning outcome descriptions in mandatory courses covered learning goal 1 and 2. For learning goal 3, however, it was revealed that sustainability was not explicitly mentioned in the learning outcome descriptions of the courses. A result is that, from autumn 2022, sustainability will be included and emphasized in the learning outcomes of relevant courses.

9 SUMMARY AND CONCLUSIONS

The PhD programme evaluation has been carried out in accordance with the guidelines for periodic evaluations at NHH. The evaluation has been based on input from several external and internal sources; a report from the external evaluation committee, interviews with PhD graduate employers in the private sector, student and graduate surveys, the 2020 PhD admission report, and the 2021 NHH Annual Report.

The overall impression of the evaluation is that the NHH PhD programme is well-run. In line with NHH strategy, NHH has set high levels of ambition for the programme. A main contribution of the programme evaluation has thus been to identify areas for even further improvement of the programme. The contributions of all parties involved in the evaluation have brought forth valuable suggestions for improvement. Table 3 summarizes the issues commented upon in this report, also showing ongoing actions, as well as tentative new actions for further improvement.

Table 3 Summary of Actions for Further Improvement

Topic	Ongoing Actions	Tentative further actions
Admission and Recruitment		
Marketing	Annual evaluation and continuous improvement. Emphasis on high-ranked schools and diversity	
Screening Process	Annual evaluation and continuous improvement	
Diversity	Emphasis on gender balance and geographic diversity	
The Training Component		
ECTS Course Programme		Evaluate ECTS course programme, and variations within specialisations
Mandatory Courses		Evaluate the need for guidelines for mandatory courses
Course Quality	Improvement of student evaluation scheme	
Efficiency of Course Supply	National and international cooperation on PhD courses	Consider further possibilities of departmental cooperation on core courses
Sustainability	Introduction of a sustainability seminar, and revision of course descriptions	
Training Generic Skills	Plans for seminar series on generic skills	
Administrative Processes	Processes to enhance efficiency	
The Thesis Component		
Thesis format	Clearer guidelines of thesis format	
Publications		Evaluate publication policies and follow-up
Supervision	New training courses and seminars	Evaluate processes for assigning supervisory committees
Student Follow-Up		
Onboarding	Improvement onboarding, and exchange of best practice	
Psychosocial Dimensions	Seminars on stress management	
Follow-up Academic Progress	Processes for continuous improvement	

Placement and Career Support		
Placement strategy	Departmental placement strategies	Develop clear NHH placement strategy
Career support	Departmental actions	Develop NHH career support strategy. Enhance exchange of best practice
Competitiveness in International Job Markets		Strategy/policy for improving placement records in international job markets
Programme Topics		
Allocation of Research Scholarships		Evaluate allocation of research scholarships to departments
Diversity of specialisations		Evaluate degree of diversity (tailoring of needs) within the programme
Regulations	Plans for minor revision of PhD regulations	
Assurance of Learning	Continuous processes of assurance of learning	

In sum, the following areas will be considered for the PhD programme action plan:

Programme-related issues:
- Evaluate the policy for allocation of research scholarships
- Evaluate the general balance between standardisation and tailoring of needs for each specialisation

Training component:
- Evaluate overall size as well as variations across specialisations
- Evaluate the need for guidelines for mandatory courses
- Consider further possibilities of cooperation across specialisations

Thesis component:
- Evaluate publication policies before graduation and follow-up of publication record of graduates after graduation
- Evaluate processes for assigning supervisory committees

Placement and career support:
- Develop clear a NHH placement and career support strategy
- Enhance exchange of best practice

10 APPENDIXES

10.1 Appendix: Report of the Evaluation Committee 2021

Report of the Evaluation Committee
PhD programme of NHH
(Norwegian School of Economics)

Committee members:
- Prof. Torben Pedersen, Bocconi University
- Prof. Luc Renneboog, Tilburg University (chair)
- Prof. Grazia Speranza, University of Brescia

1. Task

The committee was asked by Prof. Malin Arve, Vice Rector for research, to evaluate the NHH's PhD programme by means of a 'site' visit (online because of the pandemic) and the following background documents:

- Background report for the PhD programme
- PhD Programme Report 2020 to the NHH Board (this report was presented to the NHH Board in March 2021)
- Admission report of the PhD programme 2021 (this report was presented to the Research Committee in June 2021)

The online 'site' visit took place on November 25-26, 2021 and followed the schedule below.

Thursday 25 November		
Day/Time	Activity	Responsibility
09.00 – 09.30	Internal committee meeting	Evaluation committee
09.30 – 10.00	General presentation of NHH by the Rectorate	Rector Øystein Thøgersen
10.00 – 10.30	Presentation of the PhD Programme and the Section for Doctoral Education	Vice Rector for Research Malin Arve/ Section for Doctoral Education
10.30-10.45	Short break	
10.45 – 11.30	Meetings with the PhD coordinator and representatives from the department of Strategy and Management	PhD coordinator Herbjørn Nysveen, Head of Department Leif Hem
11.30-12.00	Committee lunch	
12.00- 12.45	Meeting with the PhD coordinator and representatives from the department Business and Management Science	PhD coordinator Leif Sandal, Head of Department Jarle Møen, Head of Administration Kristin R. Teigland
12.45-12.55	Short break	
12.55-13.40	Meeting with the PhD coordinator and representatives from the department of Accounting, Auditing, and Law	PhD coordinator Katarina Kaarbøe, Head of Department Finn Kinserdal
13.40–13.50	Short break	
13.50-15.00	Meeting with the PhD coordinator and representatives from the department of Economics	PhD coordinator Katrine V. Løken, Head of Department Kurt Brekke, Administration Karen Reed-Larsen
15.00-16.00	Internal Committee meeting	

Friday 26 November		
Day/Time	Activity	Responsibility
09.00 – 09.45	Meeting with a group of PhD Research Scholars	Agnes Bamford (dep of Prof and Intercultural Communication), Hege Landsvik (dep of Strategy and Management), Mascha Fauth (dep of Economics), Rasmus Bang (dep Business and Management Science), Ibrahim Pelja (dep of Accounting, Auditing, and Law)
09.45 - 10.00	Short break	
10.00 – 10.45	Meeting with the PhD coordinator and representatives from the department of Professional and Intercultural Communication	PhD coordinator Gisle Andersen, Head of Department Beate Sandvei, Head of Administration Silje Grønner Stang
10.45-11.05	Short break	
11.05 – 11.50	Meeting with PhD coordinator and representatives from the department of Finance	PhD coordinator Konrad Raff, Head of Department Aksel Mjøs
11.50 – 12.20	Lunch break	
13.30 - 14.00	Q&A	Evaluation committee, Vice Rector for Research Malin Arve, Section for Doctoral Education
14.00 – 16.00	Internal Committee meeting	Evaluation committee: Draft of report

2. Benchmarking and Goals

The Norwegian School of Economics has set high levels of ambition, in terms of benchmark universities.

The rector mentioned the following universities: Stockholm School of Economics, Copenhagen Business School, Erasmus University, Bocconi University and Tilburg University.

Most departments confirmed that they aspire to belong to the top European research-oriented universities which include HEC Paris and Insead (France), LSE, LBS, Oxford and Imperial (UK), Erasmus and Tilburg (NL), Bocconi (Italy), Mannheim and the Frankfurt School (Germany), Carlos III and Pompeu Fabra (Spain) and SSE, CBS and BI (Scandinavia).

There is a strong correlation between the research quality of a university/school and the quality of its graduate (PhD) school. On one hand, the research quality of a university/school enhances its international reputation, the capacity to attract high-potential PhD students and to transform them into high-quality young researchers. On the other hand, the international recognition of the quality of its PhD alumni reinforces the research reputation of a university/school and contributes to move its research quality further ahead. Most departments do emphasize that the quality of the PhD programme is an important way to show their ambition of belonging to the top European universities.

NHH’s ambition level for its graduate school seems feasible because:

- NHH is very generously funded (judging from the faculty-student ratio relative to that of its continental European counterparts of similar reputation),
- PhD students receive a high salary which makes them among the best paid in Europe,
- Faculty members publish in international top journals,
- NHH also recruits international PhD students and faculty members and
- NHH is able to attract national and EU funding.

All in all, NHH has the resources and ambition to develop a PhD programme on par with the top-universities in Europe, however, based on key criteria as publications by PhD-students and placement of PhDs in the international job market there is still some way to go before NHH meets its ambition (but with some variation among the departments).

3. Allocation of the number of PhDs to the departments

The allocation of resources is primarily and largely based on departments' contributions to teaching, although some degree of discretion may be applied, as explained in one of the meetings. The discretion is used to favor the departments that perform better in terms of research.

It seems that the number of PhDs is essentially equally divided across departments with a correction for department size.

The role of the central office of the graduate (PhD) school is minimal. The departments are free to determine:

- the educational standard (minimum number of ECTS for course work, number of mandatory courses, content of the programme and of the courses),
- how students are allocated to or how they find a research topic: students may choose a research area and a thesis topic themselves or they are assigned a research area and a thesis topic,
- the matching of student and supervisor (immediate matching at the very start of the programme or matching after the first year based on a student's preference),
- the duration of the PhD programme (4 versus 5 years),
- how many papers should the final thesis contain (3 or 4 papers)
- whether they prepare students for the (international) job market or not.

This substantial variation among the departments leaves the impression that there is very little exchange of best practice across departments. We see this as waste of resources that every department develops their own model, which makes collaboration and benchmarking across departments very difficult. It seems likely that the significant decentralization where each department develops its own unique PhD-programme comes at the expense of the quality that can be obtained by standardization of some parts of the PhD-programme or at least effective exchange of best practice.

4. Definition of a successful PhD programme

The committee considers as international visible quality standards:

a. publications of students in the period of the PhD research and within 6 years subsequent to graduation; a quality signal would also be R&Rs (rewrites and resubmissions) during the PhD,
b. placement of PhD graduates in the best Norwegian and European universities (e.g., in the benchmark universities listed above), in national and international institutions (e.g., in central banks), in R&D departments of multinational companies.

The question as to what defines a successful PhD programme is answered differently by the various stakeholders.

The government seems to care mostly about the respect of the duration of the PhD programme. The graduation should take place within the planned duration of the PhD programme, or with as little delay as possible. It appears that turning a 4-year PhD programme into a 5-year programme for all students may not be legally acceptable by the government.

There is no unison across departments as to what defines quality. Some departments believe that the international placement record is a very important quality signal whereas other departments do not seem to agree. Some departments seem to believe that the international job market is important, but they do not aim at preparing students for this job market.

A few departments point out the following argument: why should the Norwegian government fund PhD students who subsequently leave the country? This may sound like a fair argument, but this issue also holds for any European university which is funded with public money (which is the vast majority of European universities). Universities of other countries also fund PhDs students who can upon graduation be recruited by Norwegian universities (as is also practiced by NHH). As long as there is some balance, the above question should not be regarded as problematic.

Some departments hire their own students which is a kind of behavior that goes against the international standard. 'Inbreeding' would emit a poor signal to the international research community. This policy has been abandoned by the better European universities for about 25-30 years. This went hand in hand with hiring faculty members from other universities with tenure track contracts.

Some departments believe that their PhD programme is of excellent quality because the Norwegian industry hired their students. This may very well be, but the touchstone would still be an external academic valuation for at least part of the PhD students.

To summarize the above discussion, given the ambition for international recognition and the possibility to signal research quality by means of the quality of the PhD programme, international quality standards should be adopted that focus on

a. placing at least some of the students at the benchmark cohort of universities, and
b. stimulating/supporting students to publish in the top international academic journals.

This raises the question as to how many students should be placed at the level of the benchmark universities to be considered a top graduate school. Obviously, one cannot expect that all students be placed at internationally recognized universities because

a. some students may prefer to work for a Norwegian university and/or are not mobile (e.g., for family reasons),
b. some may prefer to work in a non-academic environment, and
c. some may not produce, despite a thorough ex-ante selection and close supervision, research that is of high quality.

If a department would be able to place yearly one or two students out of a cohort of 5 students at a benchmark university, this would be an excellent result. For international recognition, only the right tail of the graduate placement matters.

5. PhD Courses and duration of the PhD programme

There is significant variation across departments in terms of the training as not only the required number of ECTS differs but also the number of mandatory courses. The offer of courses very much depends on the department decisions.

Summary of PhD specialisations		
PhD specialisation	Research areas	Number of mandatory courses
Accounting, Auditing and Law	3	4
Business and Management Science	6	3
Economics	8	7
Finance	2	10
Professional and Intercultural Communication	4	3
Strategy and Management	3	10

The duration of the course work in the PhD programmes of the benchmark universities (where the duration of the PhD programmes usually exceeds 4 years) amounts to 1 to 2 years (or about 60 to 120 ECTS of which some ECTS refer to the writing of papers).

Given the duration of the PhD programmes at NHH, the committee recommends that the course work is not expanded beyond one year.

It is possible to graduate with a good PhD in 4 years. However, as this includes 25% course work and 25% teaching, it is very difficult to write a PhD thesis within this time frame that is internationally competitive. Most PhD candidates from the benchmark universities come to the international job market in their 5th or 6th year. This means that NHH PhD candidates who go on the market in their 4th year can hardly compete with them.

The international job market is nowadays a market with almost perfect information. Given that one can apply at no cost (by uploading one's file) to all recruiting universities, central banks, international institutions, all international job market candidates usually apply to many of the positions offered. A recruiting university hence receives several hundred files from PhD candidates from all over the world, such as candidates from Chicago, Stanford or LBS who go on the job market in their 6^{th} (sometimes 7^{th} year) or students from HEC, Bocconi, Tilburg, or Insead who typically to on the job market in their 5^{th} (6^{th}) year. It goes without saying that an NHH student in the 4^{th} year is on average less competitive as recruiting committees would focus on the quality of the papers, number of papers, publications, presentations in top conferences, etc. without considering the number of years needed to produce the file.

Some NHH departments are aware of the above-described issue and extend the PhD duration to 5 years by giving a teaching grant. Given the constraints that come from the government, an alternative would possibly be to allow students to opt for a 5-year contract at 80% of the salary at the very beginning of the PhD. When the committee suggested this latter option to NHH PhD students during one of the meetings, 1 or 2 showed interest for the option. The possibility, and the options to extend the duration of a PhD programme should be made available to all PhD students interested in participating to the international job market. An alternative would be that the government funds longer PhD contracts.

Several European universities, Scandinavian and non-Scandinavian, try to solve the 4-year problem by creating post-doc positions whereby the student spends one or two years to do additional research work, and possibly polish the papers written during the PhD, before going on the job market. Some of these students do the post-doc in their home institution, while others do this post-doc period abroad at a top university or a top research group (in a different European country or in North America).

A period of one or two years of post-doc at NHH may somehow compensate for the reduced duration of the PhD programme, if the teaching load and other non-scientific tasks remain limited and the post-doc remains mainly focused on the research projects.

A 4-year PhD programme followed by a 1 or 2 years post-doc abroad may make a NHH PhD graduate competitive on the job market if

a. the post-doc position is at an internationally recognized university or research group,
b. there is some kind of continuity between the research activity carried out at NHH and at the new university.

A value is often assigned to the diversified experience carried out in two different academic environments. Still, it may be that in such cases part of the credit of a good international placement goes to the foreign university and not to NHH.

It should be noted that the use of a post-doc system may not work as well as a longer PhD programme for the following reasons:

a. the commitment from NHH supervisors to continue to supervise and help a student who has graduated may be limited,
b. the commitment may even be lower when the student is at a university abroad (and hence out of sight),
c. spending a post-doc period at a foreign reputable university does not guarantee a substantial effort of this foreign university to help place an NHH post-doc student because placing its own PhD students obviously has priority for this university,
d. the letters of recommendation by the host professor at the foreign university are typically of (much) lower quality than the ones for their own PhD students, and
e. the credit of placing a top NHH student who does a post-doc abroad will not entirely go to NHH but may be perceived as shared with the post-doc host university.

6. Supervision

Some departments offer a PhD position which comes with a defined research project and a supervisor, while other departments allow students to explore the various subfields of a research area, possibly with the help of a mentor, such that the students can choose their own research topic as well as supervisor. Both the former (top-down) approach and the latter (bottom-up) approach have (dis)advantages.

The disadvantage of a bottom-up approach is that a starting researcher is usually not aware of what the state of the art is in a specific research area or what research directions are more promising. Moreover, searching a topic may take time for a starting researcher. It may also happen that the research topic chosen by the student does not match well with the interests and competences of the potential supervisors. In this latter case, the initial phases of the work may be time consuming and, given the short duration of the PhD programme, the result may be a delay with an impact on the quality of the thesis.

There are disadvantages of the top-down approach too. While the offer of a research topic may be efficient and induce a substantial time gain in the PhD process, the disadvantage is that the student is confined to specific research and is not exposed to other potentially interesting areas and topics which may be more fitting her/his interests and strengths. Also, the student may join a project of a supervisor such that his/her input (in the initial phases or even beyond) may be that of a mere research assistant. We also had the impression that every faculty member could initiate a project with the intention to supervise PhDs. When a student applies for a project he/she considers interesting, but the supervisor is not research active (defined as not publishing in top or subtop level journals – give and take the top 8 journals of a broad field such as econ, finance, accounting, strategy etc.), the student may be at a disadvantage. There is a correlation between PhD thesis quality and supervisor quality; a successful PhD thesis depends on both nature and nurture.

The advantage of the bottom-up approach is that when the student makes a more informed choice, he or she will have followed several courses which have exposed her/him to the various literatures in her/his field. In addition, he/she will have had more time to brainstorm with her/his mentor and various members of the department about potential topics. Importantly, the student will have had more time to think about with whom he/she wants to work. For successful PhD research, character compatibility between student and supervisor is quite important. The bottom-up approach is allowing the PhD-students to have ownership of their own PhD-project from the very beginning as it is not a project that has been formulated by a supervisor.

Most programmes in the benchmark universities take a bottom-up approach: PhD students take the course work and during this phase they explore ideas, write term papers under the supervision of a mentor or initial supervisor, brainstorm with various faculty members to choose at the end of the first (or second) year a supervisor (or supervisory team) and can embark on their first PhD paper.

From the meeting the committee had with NHH PhD students from different departments, students seem happy with their supervisory teams. Departments ensure that students have sufficient international exposure as students are allowed to spend time abroad if they wish so and that students have a good host when visiting universities abroad. In some departments students are encouraged to spend a period abroad to develop international experience. A caveat here is that supervision by NHH supervisors should remain close while the student is abroad such that one does not rely too much on the help of the host (in other words, one should avoid that supervision is outsourced to too large an extent).

7. Job market preparation

It is essential that the PhD students be prepared to the job market by means of mock interviews and by training their presentation skills. This should be organized by the respective departments. It is also advisable that students participate to national and international conferences by the time their go on the job market. The finance department and (recently) the economics department seem to prepare their students for the international job market in ways similar to the best practice applied by the benchmark universities.

The job market file should consist of a motivation letter, CV, teaching and research statements, (solo-authored) job market papers, other (solo- or co-authored working papers), teaching (tutorial) evaluations, and letters of recommendation.

It is good practice that the PhD student (if he or she wants) co-authors with supervisors/other faculty members to learn how to write quality papers. For the international job market, it is preferable that students take a solo-authored paper as job market paper to demonstrate that they can do independent research (unless the solo-authored paper is of significantly lower quality than the co-authored work).

8. Recommendations

The overall impression of the committee is that much is going well with the PhD programme of NHH. It is clear that all departments are aware of the international quality standards. Given that several best practices have only recently been implemented by (some of) the departments, harvesting the fruits of these investments is expected in the years to come.

The following comments follow naturally from the ambitions for the PhD programme as expressed by the school and by the departments. We first list the strengths of the PhD programme and then point out some issues.

The strengths of the PhD programme are:

- strong commitment by all departments to their PhD programmes,
- awareness of the required quality level to be internationally competitive and the introduction of some best practices also used at the benchmark universities,
- PhD students are very generously remunerated,
- the size of the yearly PhD intake is adequate which will enable to provide critical mass for common courses (10-15 students) and even for the more specialized courses (3-5 students),
- the gender balance is excellent (and among the very best in Europe),
- marketing the programme to attract students seems well executed. Departments are worried about the ability to recruit excellent students: many of the applicants are from the Middle East/Africa and do not meet the minimum standards to enter a PhD programme such that the number of truly good candidates is limited. NHH shares this problem with most of its benchmark universities. There is always a brain drain of very talented candidates to US top universities and the competition among European universities to attract very good students is strong. As NHH is present on the right fora and websites, and makes much publicity, it is not clear what NHH could do beyond the current efforts.

Issues:

- The central office of the PhD programme seems to hardly play any role (with exception of marketing activities) because goals and policies are entirely delegated to the departments. Consequently, there are several PhD programmes, one per department, most of which do not seem to collaborate or share resources. Every department sets its own goals in terms of quality, how to prepare the PhD students for the job market (or not), how to match students with supervisors (top-down versus bottom-up), duration of the programme, course work intensity and mandatory course work. The central office could streamline the process of introducing best practices into all departments. NHH cannot afford to have this substantial variation as it to some extent comes at a price of a lower quality PhD programme.
- The allocation of PhDs to departments seems not to be driven by quality criteria. It may be advisable to grant more PhD positions to departments able to deliver high quality PhD graduates. This could be measured by considering the quality of the papers published by the PhD graduates and/or by their supervisors, and by considering the PhDs ability to perform well on the international job market. Although it has been said that, in addition to the teaching load as an allocation criterion, some discretion is applied in the allocation process, making quality criteria public and transparent would, in a much stronger way, push the departments towards adopting behavior consistent with such quality criteria. Also, a criterion based on the teaching load may encourage the departments to offer courses that are necessary and useful.

- While one can write a good PhD thesis in 4 years (even if this is only a part-time basis given that 25% of the time consists of teaching work for faculty), PhD candidates cannot be competitive on the international job market where PhD students take 5 to 6 (sometimes even 7) years to complete the PhD. NHH may consider working, possibly along with the best Norwegian universities, to convince the Norwegian government that a 4-year programme is below the international standard. If this is not possible, alternatives should be explored by offering students, from the start, a longer contract at an 80% salary or adding a 5th year by means of a (teaching) grant.
- Gains in resource allocation efficiency could be realized by offering some common core courses. Most, if not all, students (from economics, finance, accounting, business, strategy, and management) should have a solid basis for empirical research and possibly take courses such as Econometrics 1 and 2. This would mean that most students would have a common core of competences and would get to know one another better, which may lead to collaborations and a research culture whereby students can help one another for the consecutive years. Some departments could also share more courses (which is already done to a limited degree); e.g., a Microeconomics 1 course could be useful for many of the above departments. Having a common core would not undermine departments' freedom to offer field-specific courses, such as a methods course to cater to the specific needs of each discipline. Exceptions to a common core would be a) students in management science/operations research who need a different type of methods courses and b) students from intercultural communication (although their need to use of statistics could warrant attending Econometrics 1, especially if some of these students were to aspire to collaborate with researchers of other departments considering that textual analysis is nowadays a standard research tool in management and economics).
- There is substantial variation in the amount of course work across departments. While some departments offer little course work, others offer a very large amount of course work, especially in the light of the duration of the programme. Course work is of great relevance both to provide a common basis to the PhD students who typically have heterogeneous backgrounds and to create a basis of knowledge and methods that will allow them to perform high-quality research. The problem is that the duration of the PhD programme, considering the 25% that goes into teaching/research assistance, is essentially of 3 years and the time that the courses absorb is subtracted from the time for the scientific work. Also, a trade-off between efficiency (common courses) and customization should be studied. Some streamlining of programmes in terms of requirements could be contemplated.
- In some departments the course work is taken in the first year whereas in other departments the course work seems to be spread out over two years (sometimes even expanding into the third year). It is advisable that the course work be taken in the first year and be completed by the end of this year. The first year should provide methodological (theoretical and empirical) skills as well as courses that explore the literature and give students exposure to different research topics. The course work will also enable students to make informed choices about research topics (and whom to collaborate with). The international practice is a bottom-up approach: students are not given a research topic for which to apply but are given the opportunity to make an informed choice towards the end of their doctoral course work phase (here, at the end of year one).
- The interviewed students were only vaguely aware (at best) of how the job market functions and what is expected of a high-quality PhD thesis. Some students did not seem aware of the quality hierarchy of journals in their research area. From the start, students should be made aware what the top and very good journals are in their field and how to strive towards publications at that level.

10.2 Appendix: Self-Assessment by Departments 2021

Each department was asked to write a general evaluation of the strengths and challenges of their department's PhD specialisation, as well as assessing the following aspects:

Admission:
- the department's PhD student recruitment strategy
- the recruitment process at NHH
- the admission requirements,
- the candidate quality

Courses:
- the resource situation at the department for offering PhD courses
- the department's collaboration with other institutions on course offerings and participation in organized PhD course networks
- career guidance for PhD candidates / training in writing applications to funding agencies (research projects)
- the course progress of your PhD students

Supervision:
- the supervision capacity at the department
- the supervisor quality and need for formal training of supervisors
- the department's experience with internal and external co-supervisors
- the thesis progress of your PhD students

Funding:
- the sufficiency of internal funding (from NHH)
- the sufficiency of external funding only tied/limited to a specific topic but with free selection of candidate
- the sufficiency of external funding tied/limited both to a specific topic and a specific candidate (e.g. industrial PhD)

Placement:
- The placement record of the department
- The placement strategy / the need for a placement strategy both at department level and centrally

Below follows the self-assessments by each department.

10.2.1 Department of Auditing, Accounting and Law

Admission

The department currently has 12 PhD students, where all of them have been recruited from our own programmes. Still, it is a good mixed group between Norwegian and international candidates – consisting of students from Canada, India, Pakistan and Norway. Generally, recruitment in accounting and auditing is difficult at all levels – in part due to the attractive alternative career paths for graduates. A PhD is not for everyone, and IRRR primarily focus on recruiting PhD's that may be good candidates for permanent positions at IRRR. Hence, good knowledge of the potential PhD candidates is in our opinion important, and that is difficult with non-NHH candidates. For this reason, we continue to recruit PhD students primarily through our own programmes (and post-docs both internationally and through our own PhDs). Our faculty members try to identify promising students in the more advanced master courses, and we have been quite successful doing so. We assess potential candidates with respect to their academic performance, on the basis of their ability to write promising research proposals, as well as on their fit with the research profile at the department in general and available supervisors in particular. We hire with specific supervisors in mind, which implies that we may choose not to hire a promising candidate if we believe that we cannot provide well-suited supervisors.

The admission requirements are both the general demands at NHH and in addition we require an adequate level of academic and English language by adequate GMAT or GRE scores and TOEFL or IELTS test scores, or documented equivalent skills. This has given us candidates with a high quality, and we are very satisfied with the group we have.

Courses

PhD courses given by the department fall into four categories: method courses, management accounting, financial accounting and auditing, and one sub-discipline with economics; "law and economics". The department educate candidates in all disciplines within accounting and in addition we have a few courses in economics and law. However, NHH do not have a PhD-program for candidates in law even if we have staff within law. We have a large variety of topics within the department and therefore the candidate do not take the same courses. However, there is some overlap in the coursework of these students, but both theoretically and methodologically, there are differences between the groups that lead the students to compose quite different course portfolios.

As indicated by the low numbers of PhD students entering the programme each year (see Table 1), there is rarely a "critical mass" of PhD students internally that allows the department to maintain a broad set of PhD courses given annually. In addition, we believe that the candidates benefit from taking courses at the best business schools and universities other places. For these reasons, the department collaborates with other institutions in PhD education. For management accounting students, the department collaborates with the Nordic PhD Programme in Management Accounting. This is a collaboration between NHH, Gothenburg University, Stockholm School of Economics and the Swedish Business School at Örebro University. In addition, the department encourages PhD students to take some of their courses at other universities or business schools nationally and internationally (e.g. through the EIASM network). The department provides funding for such travels

Furthermore, we cooperate with other departments at NHH. For courses in research design, we collaborate with the Department of Strategy and Management and for philosophy of science, we collaborate with the Department of Management Science. As mentioned above, we have had too few and differentiated group PhD students to maintain a broad portfolio of courses at the department. However, collaborating internally and externally on courses has allowed us to give our students a good selection of courses. This also gives the PhD students a very good network participating at the best courses in Europe/USA within accounting.

Courses offered by the department in the last five years are shown in the table below.

Courses offered by the department in the last five years.

Course name	Course responsible
MET501C Research Designs and Methodological Choices: Research Proposal (Accounting track)	Katarina Kaarbøe
MET524 Research Ethics for the Social Sciences	Ivar Kolstad in 2021 (previous Lars Jacob Tynes)
MET527 Scientific Methods: Research Design and Methodological Choices for Accounting and Business and Management Science	Frøystein Gjesdal, Iris Stuart, Floris Zoutman (FOR), Anatoli Bourmistrov
REG503 Financial Accounting Research I	Frøystein Gjesdal
REG505 Financial Accounting Research II	Ole Kristian Hope
REG511 Cost and Performance Measurement	Trond Bjørnenak, Christian Ax
REG519NFB Research Methodology in Corporate Governance	Iris Stuart, Joe Carcello
REG520NFB Theories in Psychology	Iris Stuart, Hung Tong Tan
REG522 Economic Analysis of corporate misconduct	Jennifer Arlen, Tina Søreide
REG523 Behaviroral Audit Reserach	Aasmund Eilifsen, Anna Gold, Richard Hatfield
REG524 Business Crime	Jennifer Arlen, Tina Søreide
REG525 Digitalization and Accounting	Katarina Kaarbøe, Jan Mouritsen, Anatoli Bourmistrov, Giuseppe Grossi, Martin Carlsson-Wall and Lucas Goretzki

The department have given 12 different PhD courses (4 method courses, and 8 topic courses) the last 5 years. The method courses are given evenly every year, together with Behavioural audit research and Cost and Performance Measurement (every second year). Both Cost and Performance Measurement and Digitalization and Accounting is given within the Nordic PhD program.

Career guidance for PhD candidates is done by the head of department and the PhD coordinator and in addition, informally by supervisors. We have no formal system for mentoring PhD students in writing applications.

Supervision

We have 10 main supervisors and 3 co-supervisors at the department out of 16 permanent staff (app. 80%). So, there is a large degree of involvement in the PhD education at the department. We do not have formal training of supervisors, but we regularly use postdoctoral researchers as co-supervisors. This gives them valuable experience in supervision and prepares them for being main supervisors in the future. We habitually use both internal and external co-supervisors in our supervisory committee, given the need for specific competence. Several of the external co-supervisors are also hired as adjunct professors at the department. We have a very good experience with that, giving the candidate both access to their knowledge but also to their network. We will continue to develop this further.

Inflow and outflow of PhD students at the department (2016-2020)

	In	Out
2016	2	8
2017	3	1
2018	5	0
2019	1	2
2020	3	2

As shown in the above table, we admit 2-3 PhD students per year (except 2018) and expect to have the same amount the coming years. The department has worked systematically both with improving our recruitment and admission strategies and with developing high quality supervisory committees and milestones (mid-way evaluation). These measures seem to have been successful and we are monitoring the progress of our candidates in close collaboration with the office of research administration.

Funding

Our PhD students get funding both through annual stipends ("annuum"), as well as through the various NHH funds. We also have a local research fund at the department ("the MØST fund"), from which all PhD students can apply for funding for research activities. In addition, we have the Arthur Andersson fund where candidates within financial accounting can apply. Finally, we have two research centers where PhD candidates affiliated with these centers can apply for funding. When it comes to courses taken at other universities or abroad the department cover their expenses. However, when it comes to the salary it is not satisfactory in order to be competitive on the market for good candidates. To conclude, we believe that salary should be increased but the funding to other expenses is sufficient.

Placement and recruiting

Placement and recruiting are for our department much of the same. At the moment the department are in a growing phase and therefore, there is no formal strategy in place for placement at other universities. In the next phase we expect to outplace candidates to the top universities and business schools. However, at the moment within the field of accounting, PhD candidates are very attractive both at other universities and in practitioner field. Many of our graduates have therefore ended up in private companies. With regard to academic careers, recent graduates at the department have been hired by BI Norwegian Business School, Western Norway University of Applied science, University of Sussex, UK and RMIT university in Melbourne, Australia as well as by our own department.

Due to the difficulty of attracting senior faculty in the field of accounting, attracting our own PhD students to pursue postdoctoral work to qualify for senior positions at the department, is an important part of our recruitment strategy. However, several of our current PhD have high academic ambitions and have also spent time at very good institutions abroad (London School of Economics, Tilburn University, Central European University) and we hope they get good offers also at other highly ranked universities. We find it likely that some of our current PhD students will be successful on the academic job market.

Overall, we believe that our PhD specialisation provides PhD students at the department resources and activities that are conducive to a good process with conducting the PhD. However, as shown above, we face some challenges in getting good candidates and maintaining our PhD candidate after they are finished. We currently work with overcoming these challenges by actively working with finding good candidates and start early to discuss with the existing candidates the possibility to stay at NHH. Increased salary to the candidate would also be positive for getting good candidates.

10.2.2 Department of Business and Management Science

The department is multi-disciplinary, and the research conducted covers both empirical and theoretical inquiries within the specialisation Business and Management Science.

Historically, key research areas in this department were structural analysis of energy and resource industries, retail trade and shipping, as well as taxation and valuation. These remain important areas at the department, despite the arrival of new topics and the dramatic change in methodological approach.

Since 2018, the main activities have been organized into six broad research areas:

1) Incentives, Contracts and Firm Behaviour
2) Investments, Insurance and Household Finance
3) Business Taxation
4) Energy Markets, Resource Management and Sustainability
5) Shipping, Logistics and Operations Management
6) Data Science and Analytics

The department has 27 PhD students, 21 of whom are funded by NHH and 6 with external funding or other funding arrangements. 10 of the candidates are female.

The gender balance among the PhD students is gradually improving. For the time being, the female share is 37 percent. In the fall semester, there will be three more female candidates enrolled.

The international evaluation of the department (2019) concluded in their assessment of the PhD in Business and Management Science:

- The PhD throughput is excellent.
- The focus on career development and placement is excellent.
- The average number of PhD students per faculty is low and there is potential for an increase. Particularly if the department succeeds in increasing external funding.

The department has a high and steady production of PhD candidates, and the gender balance is improving. Our policy of systematically monitoring the candidates has proven to be a success both academically and in terms of good throughput. Close monitoring makes it possible to detect potential problems or mismatches between the program’s goals/milestones and the quality of the candidates or their interests at an early stage. Under these circumstances, a candidate may be asked to leave the program within the second year. This puts the candidate in question on a better career track and saves resources for NHH. A prerequisite for close monitoring is a policy whereby each candidate is allocated a supervisor or mentor in parallel with the admission process.

Each PhD project constitutes coursework worth 45 ECTS and three or four papers, depending on the extent of co-authorship. Most of the coursework should be done by the end of the third semester. A good draft of the first paper must be presented during the third semester, either at an external conference or at the annual department seminar at Geilo. These are easy-to-measure milestones. Failure to complete one of these milestones is a breach of the signed contract and will normally initiate a termination process.

Recruitment and Admission

Recruitment strategy

The aim of the PhD recruitment at the Department of Business and Management Science is: 1) to recruit the best candidates in terms of grades and publications/forthcoming publications in fields in which the department has available capacity to supervise and; 2) to strive for a best possible distribution of candidates on the department’s main research areas. The department is recognising its responsibility to educate candidates to academic positions in the Norwegian university sector as well and in the Norwegian industry. Due to the general shortage of Norwegian candidates, the department tends to give a slight advantage to Norwegian applicants. It also seeks to avoid a situation in which any other single nationality dominates the total group of PhD students at the department.

Announcement of PhD Research Scholars vacant positions
The Department of Business and Management Science announces vacant PhD positions twice a year: once around New Year, in connection with NHH’s general announcement round. In addition, through the extraordinary recruitment round in August-September. This possibility provides desired flexibility and gives the option to act quickly if particularly interesting candidates should emerge.

NHH announces the vacant positions ad for all the departments together. The department of Business and Management Science distributes its ad throughout domestic and international research networks and social media.

The department’s PhD coordinator also advertises the PhD programme in his/her network – along with other colleagues and current PhD students, to recruit potential candidates at “pizza meetings”, organised by the department in April-May each year. These meetings aim to attract interesting master students before they get recruited by the industry. To some extent, the announcement is also marketed in master courses at NHH.

Applications and applicants
The department used to receive some 150 applications to its PhD specialisation in the annual announcement round, except for the last couple of years where we’ve had around 250 applications in each round, i.e. approximately 500 annually. A large part of the applicants is from geographically peripheral countries and schools (Far East, Africa, and China) and normally, just 3-8 are Norwegian citizens. Most of the applicants who do have a master’s degree from NHH are also foreigners. Almost all of them have a degree from the ENE-masters profile (Energy, Natural Resources and the Environment). The shortage of Norwegian/Scandinavian and a large number of foreign applicants is a general challenge for PhD specialisations at Norwegian institutions. NHH is no exception. In the case of NHH, this is probably reinforced by the industrial sector’s recruitment campaigns directed towards students down to the bachelor’s level. The forcefulness of these campaigns, combined with good salary offers at well-reputed companies makes it particularly hard to recruit NHH students to our PhD specialisations. The department has implemented different actions throughout the years to recruit more local applicants such as inviting all NHH master students to the aforementioned “pizza meeting”. However, restrictions caused by the COVID 19-pandemic have lately made it challenging.

Evaluation of applications and assessment of the candidate quality
The department has a committee consisting of four faculty members to monitor its specialisation and the individual applicants. It is led by the department´s PhD coordinator.

The first selection of candidates is rather rough. A significant proportion of the applications are lacking the required documentation. This process is done manually, and the department has requested repeatedly an online recruitment tool that would reject insufficient applications automatically; this would make the process significantly more efficient. It is acknowledged that this might be difficult to implement, and the current tool has been improved to an extent.

The committee selects particularly interesting candidates following the department’s strategy. It assesses grades and diplomas in cooperation with the Office of Research Administration at NHH. It leads to a shortlist of approximately 10-15 candidates. This selection process has become more smooth and efficient over the years.

The committee conducts, under normal circumstances, physical interviews at NHH with candidates who already live or stay in Norway. The rest of the shortlist is interviewed via Teams or Zoom. In the final selection and ranking of the candidates, recommendation letters (preferably from people within our networks) and language skills (English) are given weight in addition to the points indicated in the department’s recruitment strategy. Surely, it is a risk to recruit candidates whom we never have met to a full four-year PhD Research Scholar position. However, it is difficult to get more detailed background information without inviting all candidates to NHH for thorough testing. Therefore, the department has very tight monitoring of the PhD students, in particular during the first two years to take action if needed (see below for more information about this).

The committee makes separate rankings for the different main research areas to facilitate a good distribution of PhD students. At this point in the recruitment process, the department has already allocated a tailored supervisor with available capacity and a real commitment to undertake the task.

Our final ranking is based on the following criteria:

- Quality documented (education)
- Quality documented (research production, scientific papers)
- Topics (related to available supervising capacity)
- Topics (related to present prioritized research areas at the department)
- Topics (related to balancing the different research areas at the department)

Hence, our admittance procedure is not based on a single absolute quality ranking as if we were handing out a reward. The fit to the present needs and availability of supervisors are almost always binding. There is no pre-allocation of supervisors. It is done during the assessment process of the applicants.

Onboarding of new PhD students
Over the years, the department has developed a good system for helping new PhD students in the preparation for their start at NHH. Since most of the new PhD students are coming from abroad and from non-European countries, this includes assistance with visa application, which turns out to be time-consuming for the department's administration and not a straightforward process[14]. In some cases, the long processing time has complicated the startup time for the new students and lead to up to half a year's delays, not to mention the difficulties caused by the travel restrictions that the current pandemic has caused. This is a potential challenge concerning progress since students who arrive late get out of step with the academic course programme. A late start may also negatively affect the class environment for the group of new PhD students.

Housing remains a challenge for new PhD students coming from abroad to NHH. It is very positive that NHH rents some bed-sits earmarked for new PhD students at the students' dorm near the school. Unfortunately, the number of bed-sits is insufficient for meeting the demand. Nonetheless, they are of good help.

Several years ago, the department developed a welcome letter for each category of new PhD students. It is updated every summer and distributed to new students in advance of their arrival at NHH. This letter contains a wide range of information including rights and duties, rules and regulations, and draws on the department's experience with questions and situations that often arise during a PhD study.

The Office of Research Administration invites all new NHH PhD students to a welcome meeting scheduled for August/September as to inform about important practical matters. The meeting also has a social dimension. The department holds annual information meetings focusing on rules and regulations that are important for the department. It also arranges a social gathering in order to integrate new students.

Appointment and funding of positions

The department board processes the report from the committee and sends its recommendation to the central academic appointment committee (AU). This body has a pot of available PhD Research Scholar positions. The vacant positions are rather evenly allocated between the specialisations. However, the larger departments tend to get a somewhat larger share of the pot than the smaller departments. The appointment committee typically allocates annually 3-5 positions to the Department of Business and Management Science. Quite often, as is the case right now, the department receives external funding through research projects for additional positions. In line with the NHH´s responsibility to improve the level of academic quality in higher education and other public sector

[14] In the past two years, NHH has tried to centralise much of the onboarding process at the Service Centre. The department thinks that it has not been a successful strategy and we need to work further towards greater efficiency in our routines.

organizations, the department may also recruit candidates doing academically challenging work, e.g. teaching at regional Norwegian institutions. These are often in the Public Sector Scheme. By their employer and NHH, they normally remain in their original position and receive a salary from their original employer at the same time as they are enrolled as PhD students at NHH. As the Public Sector PhD program, there is an Industrial PhD program also funded by the Norwegian Research Council. It is a similar arrangement between industry partners and NHH. Presently, there is one Industrial PhD and two Public Sector PhD candidates enrolled in the department´s PhD specialisation.

Courses

The department uses more resources on the PhD programme than allocated by NHH's central budget. The heterogeneity of fields served by the specialisation in Business and Management Science excludes the department from offering too specialised courses. The courses served by the department have each a workload/credit of 5 ECTS except ECS565 which has 7.5 ECTS. These courses are

- BEA511 - Topics in Dynamic Modeling and Optimal Controls
- BEA512 - Modeling Decision Problems under Uncertainty
- BEA514 - Topics in Numerical Optimization (dynamic and stochastic)
- BEA521 - Tax Policy and Multinational Firms
- BEA522 - Rural Logistics
- BEA523 - Causes and Effects in Economics and Management Science
- BEA524 - Taxes and Labor Mobility
- BEA525 - Financial Engineering in Energy Markets using Real Options
- ECS565 - Microeconomics II

Other specialised courses may be offered outside NHH, e.g. in collaboration or solely by international academic institutions or scientific associations. This is a conscious policy. It expands the candidates' networking and reduces the total use of resources as well as assuring a sustainable course portfolio. In turn, it makes it easier for the PhD students to timely complete their course part of the program. There are only two subjects that are mandatory in this specialisation: a PhD course in Scientific Methods and a PhD course in Microeconomics. The former is a national requirement. The rest of the course portfolio (≥ 35 ECTS) is adapted to the specific research area. With the heterogeneity of research areas at the department and efficiency in resource utilisation, the PhD students in the specialisation are typically picking 25-40% of their courses from other specialisations at NHH. Hence, there is a high degree of freedom for the candidates and the supervisors to select courses that will enter into the department's part of the contract between the candidate and NHH.

Supervision

Supervision capacity at the department

The department currently consists of 20 full professors and 13 associate professors, in addition to seven post doctors/assistant professors. Approximately 60% of them participate in the supervision of PhD students at the department and occasionally at other NHH departments. The department strives to increase the proportion of staff taking part in the supervision and applying for projects with externally funded PhD positions. It is an integral part of the department's employee development plans.

Though the overall supervision capacity is considered sufficient, it is desirable to have stronger competition for the research fellows and even if the situation varies somewhat between the research areas.

Training of supervisors

This year NHH starts offering an annual course addressing "Fundamentals of PhD supervision" which aims to provide knowledge and skills that support security for new PhD supervisors and offer experienced supervisors some useful tools and opportunities to share best practices.

But so far there has been no formal training program for supervisors at NHH or the department. Nevertheless, the department consciously uses the co-supervisor role as a training platform for inexperienced, but well-qualified faculty members. It has been integrated into the department's plan for individual development and has become a requirement for the promotion to full professor. The

PhD coordinator closely monitors the progress of the PhD students and has irregular but frequent meetings with supervisors as well as with the PhD students. A strict regime with frequent reporting by the supervisor and the student (biweekly or monthly) is put in place in situations with a severe lack of research performance or progress. Hence, in cases of potential problems or risks of delays, actions are made in collaboration with both parties. In this way, the PhD coordinator plays an active role in the supervision processes and reports to the department's leadership group. In 2019-2020 such a process and logging the lack of progress led to a termination of a contract a year ahead of its maturity.

An illustration of the tight monitoring process: A candidate became red-flagged last year. There were 11 months left of the contract period and it looked like the candidate would not finish without a significant delay. The PhD student and the monitoring committee instructed the student to biweekly append 10 lines to a report describing what had been completed in the previous two weeks and the plan for the next two weeks.

The instructions for the rest of the contract period were put into the student´s digital calendar. The candidate handed in the thesis on time.

The experience with internal and external co-supervisors
The department has, for a long period, used the co-supervision role as a training platform for supervisors. This is an arrangement that has worked quite well. In some cases, experienced internal supervisors are carrying out the role of a co-supervisor. This is often due to the need of a person within their particular research field in the supervision committee, but it may also be a solution in cases when the main supervisor is relatively inexperienced. The policy of the department is that external co-supervisors should be selected from the main supervisor´s research network and preferable among collaborators on an active research project. The department wants each PhD student to enter in an ongoing externally funded project or that a project should be formed around the candidate. Each candidate becomes part of a research project ensuring full commitment from the supervisors by incentivising the process of collaboration, doing research, and writing papers together to ensure a successful project, which increases everybody's rate of paper production. There is something in it for all. Hence, faculty should compete for PhD students.

Career guidance / Placement

The department newly introduced a placement officer, whose job is to offer career guidance in the form of personalised advice; she/he organises both joint and one-to-one meetings, adjusting the advice to each candidate's needs. Career guidance is an integral part of supervision. Supervisors write articles together with their students and students join their supervisors at conferences. The department expects that the supervisors introduce the students to their research network from an early point. Furthermore, supervisors with externally funded research projects or in the process of applying for such funding should involve their students in this.

Students' progress and graduation rate

Students' progress
The PhD students are expected to complete or be close to completing, the course component of the PhD program with sufficient grades during the first year of study. It is the first milestone specified in their contract with the department. Likewise, the contract specifies certain milestones related to the progress in the candidates' research particularly the progress of the first paper. They are strongly encouraged to submit contributions to the department´s Discussion Paper series (REPEC.org, ISSN 1500-4066). The collaboration with NHH's Office of Research Administration has improved considerably during the last few years. Quick notifications from the office to the department about students with insufficient grades on specific courses make it possible for the department to keep closer track and suggest action when needed. The department has ensured termination of the PhD contract in cases of severe underperformance.

As indicated above, specialised courses are to a certain degree offered through external institutions. The department covers expenses related to external mandatory courses and later on specialised courses only in cases when students demonstrate sufficient progress and the course is regarded as highly relevant. The practice of being somewhat reluctant in terms of funding seems to contribute positively to the overall progress. Today, none of the department's PhD students have a large number of unnecessary credit points and a corresponding lack of progress on the thesis.

The department encourages the supervisors to write articles together with their students and to include them in their research networks. This has been particularly successful within the research areas of Management Science and Energy, Natural Resources and the Environment. It may be argued that these disciplines, which are somewhat closer to the natural sciences, over the years have developed a strong tradition for working in groups and on common projects and papers. Though this "group thinking" is very positive about getting new PhD students started, there is a difficult balance between collaboration and co-authoring and the desired degree of independence - which is often defined in line with single-authored papers. The department usually expects that the PhD thesis to consist of four co-authored articles or two co-authored articles and one single-authored article.

PhD students at NHH have the possibility to apply for funding of research stays (1 or 2 semesters) at a high-quality research institution abroad or domestic. The department considers this to be valuable. However, to avoid delays the candidates need to demonstrate good progress and present an elaborated plan for the stay in advance. Also, a researcher at the hosting institution should be committed to supervision, preferable by working on a co-authored paper. The arrangement has to be fully supported by the candidates' main supervisor and the PhD coordinator in order to be funded. During the stay, the PhD students have to report regularly to their supervisors and the PhD coordinator. Any significant shortage of progress is discussed in the department's leadership group and action is taken if needed. This often implies biweekly or monthly reporting and logging of progress to the PhD coordinator.

With a few exceptions, almost all interventions have a positive outcome, i.e. the candidates are more or less brought back on track.

Annually – in connection with the centrally initiated progress reporting - the department makes a thorough assessment of all its PhD students. Before evaluation, the PhD coordinator meets with each of the students individually. Thereafter, all PhD students and supervisors send independent of each other their written progress reports. The findings are gathered in a written report that is discussed meticulously by the leadership group. Questions regarding throughput and performance in the PhD programme are on the agenda in almost every meeting in the department's leadership group.

The department's throughput rate 2016 – 2020
Over the five years 2016–2020, the department has been responsible for 25 enrolled PhD candidates of which 21 were employed at NHH. 17 candidates have completed the programme, and only three candidates have left the programme. They were advised to resign due to insufficient progress after two years in the programme.

Candidates who were formally admitted to the programme, but who nonetheless never started at NHH, have been excluded from this report.

Delays
Three candidates who have not yet completed the programme were admitted in 2014 and 2015, respectively. One will defend her thesis on June 16th, a second candidate is close to completion, whilst the third candidate, belonging to the 2015 cohort, has the whole time been employed as a lecturer at another institution and has only 50% allocated to his PhD work. He is expected to submit the thesis this year and will de facto be on time.

Publications by PhD candidates
Throughput is an important dimension of the PhD programme. There is a trade-off between throughput and quality. The quality of the programme can partly be assessed by the placement of the candidates, but arguably, the best quality measure is publications. In the table below, we give statistics for the number of publications by candidates that have completed the program (Panel A) and for candidates who are currently active in the programme (Panel B). For candidates who have defended their thesis, we have chosen to focus on publications in a time window of five years before the defence (including the year of the defence) and five years after the defence.

Publications by PhD candidates

Panel A: Publications five years before the defence and up to five years after the defence				
Defence year	No of candidates	Share with at least one	Median	Mean
2010-2015	11	100.0% (11/11)	7	8.91
2016-2020	17	88.2% (15/17)	3	3.65
Panel B: Publications after the admission year for candidates who have not defended their thesis before June 2021				
Admission year	No of candidates	Share with at least one	Median	Mean
2015-2016	4	50.0% (2/4)	0.50	0.50
2017-2021	23	13.0% (3/23)	0	0.17

10.2.3 Department of Economics

The Department of Economics consists of four different research groups, all of which recruit PhD students. Currently, there are 24 PhD students at the department (22 with an ongoing contract, 2 with a study right). 13 candidates are externally funded. The graduation rate is high and number of academic placements is increasing. This is a result of our tight mentoring process of each PhD student and the tight dialog between the department, the candidate and the main supervisor.

The number of applicants – also high-quality applicants - have been increasing during the past years, cf. the table below. The increase comes mostly from foreign applicants.

Applicants Department of Economics since 2010 (January deadline only)

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Number of Applicants	52	41	52	86	137	83	107	137	212	209	253	211

Admission

Recruitment strategy

The Department of Economics aims to recruit the best candidates nationally and internationally in terms of research potential in fields in which the department has supervision capacity. We strive for a gender balanced group of PhD students and a meaningful distribution of candidates on the department's main research areas. The department also recognizes its responsibility to educate candidates to academic positions in the Norwegian university sector as well and for the Norwegian industry.

Recruitment process

The Department of Economics announces vacant PhD positions in connection with NHH's general announcement round. In addition, the department also announces positions in the fall in order to capture candidates who are particularly well qualified. The positions announced in the fall has been quite effective in attracting some high-quality candidates from NHH. The Department of Economics distributes the job ad throughout domestic and international research networks and its social media channels. The announcement is also marketed at master's level lectures at NHH.

During the last years, the department has received between 41-253 applications in the main announcement round. A large part of the applicants is foreigners; about 5 percent are Norwegian citizens. There is also a negative trend in the number of Norwegian applicants. Most of the applicants with a NHH master's degree are not Norwegian citizens. The lack of Norwegian applicants is likely reinforced by the industrial sector's recruitment campaigns targeted to NHH students. There are also substantially more male than female applicants, both among Norwegian and foreign applicants. The department has made different actions throughout the years to recruit more female and more local applicants such as inviting interested master's students to a PhD information meeting and a broad series of events targeted to women in economics.

Applicants are evaluated by a committee consisting of three faculty members from different research fields. The committee is usually led by the department's Deputy Head who is also the PhD-coordinator. The committee selects particularly interesting candidates in accordance with the department's strategy. Shortlisted applicants are also interviewed at NHH or via Zoom/Skype before ranking of the candidates. The department board makes the final ranking of the applicants.

Admission requirements
Applicants are evaluated based on the following criteria: educational background (e.g. course programme, marks, quality of the institution), recommendation letters or references, test scores (GRE, GMAT, TOEFL, IELTS), research proposal and statement of purpose, work experience (e.g., teaching or research assistant appointments), and examples of written work (when these were included in the applications).

Candidate quality
In general, the quality of the applicant pool is increasing. In particular, the quality applications from foreign students are clearly increasing. This is mostly due to a clear increase in good quality applicants with master's degrees from prestigious programmes in other European countries.

Courses

The Department of Economics has changed its course programme and the ECTS points students receive for the mandatory courses based on the suggestions from the previous programme evaluation. In particular, the department now provides seven mandatory courses (PhD Macroeconomics I and II, PhD Microeconomics I and II, PhD Econometrics I and II, and Scientific Methods), all seven courses account for 7.5 ECTS points and grades were replaced with pass/fail evaluation.

Resource situation for offering PhD courses
The Department of Economics invests a lot into the PhD course programme. The seven mandatory courses are taught by faculty at the Department of Economics (one of them jointly with a Professor II). Courses are small and students receive individual feedback.

In addition to the mandatory courses, we organise several elective courses each year. The elective PhD courses are often taught by Professor II[15] (e.g., Tore Ellingsen in 2021) or funded through grants from the Research Council of Norway and given by top international researchers including (Janet Currie, Josh Angrist, and John List).

Collaboration with other institutions
The Department of Economics entered into a formal agreement with the Department of Economics at the University of Bergen (UiB) that requires PhD candidates at UiB to attend some of the PhD courses provided by NHH. In the future, UiB faculty will also provide teaching in one of the courses in the PhD programme.

Career guidance
Although not part of the mandatory course set, the Department of Economics provides career guidance to the PhD candidates. Such guidance includes presentation training, academic writing training, guidance to apply for external funds, and in particular guidance and training for the academic job market.

Course progress
Students need to pass all mandatory courses within the first two years of the programme. Most students accomplish this within the first year, very few candidates need to retake one (or more) exams. Most students finish mandatory and elective courses within the first two to three years in the programme. This process is currently somewhat slower as many elective PhD courses were cancelled in 2020 due to the Covid-19 pandemic. As course are now provided virtually and as physical courses with international faculty and participants will likely resume in 2022, this slowdown seems only short-lived.

Supervision

Supervision capacity
In most fields, the department has a good capacity of supervisors with extensive and active research experience. After talking to several potential supervisors and the PhD coordinator, the department assigns each student a main mentor/supervisor during the first semester. Students are also often assigned a second internal supervisor during the first year; students with broad research interests are

[15] Professor II have their main academic employer outside NHH, and is employed at NHH in a 10%-20% position.

often assigned supervisors from different research groups to reflect their research interests. Supervisors can be changed after the first year (or later if necessary) if the research focus of the student changes.

Supervisor quality and need for formal training
Only recently, NHH has started providing formal training in supervision. The first course is in late spring 2021. To guarantee supervision quality, younger faculty members are often paired as co-supervisors together with very experienced and successful main supervisors (or vice versa) so that younger supervisors are mentored and have a contact person if needed. The PhD coordinator also provides guidance and support.

Experience with internal and external co-supervisors
All candidates have an external co-supervisor, most candidates have also an internal co-supervisor. External co-supervisors are often recruited from the pool of Professor II and/or are the hosts of a research visit of the candidate. Some candidates use their external co-supervisor very actively and co-author paper with them. In other instances, the external co-supervisor mainly provides quality control. Internal supervisors are chosen to complement the main supervisor and they usually co-author a paper or have another very active advisory role.

Thesis progress
The Department of Economics has a system for proposal defence in the second year that follows the NHH guidelines. The timing of the proposal defence has been changed from the fall to the spring of the second year since the last evaluation to ensure that the candidates have more time to develop and work on their own research idea for the job market paper/single authored paper and not only present joint work with their supervisor. This allows the department to judge the progress better. The presentation is followed by a meeting between the candidate, the supervisor and the PhD coordinator where progress and plans are discussed and also what the department can contribute to ensure the candidate's progress. Moreover, the PhD coordinator has yearly individual meetings with the candidates after receiving feedback from the supervisor, which are also effective tools in tracking the progress of the candidates. In addition, the PhD coordinator has different group meetings with the PhD students on specific topics (e.g., on boarding, job market, teaching, etc.). On average, PhD-students use 4 years and 9 months from their contract start to their thesis defence (the duration includes parental leave and sickness absence periods). As we have opened up for 5th year stipends for very promising students (discussed below) and these students usually do not submit their thesis before end of their stipend period, this average is higher than it would be without the possibility for 5th year stipends.

Funding

Internal funding
Among the biggest challenges for the PhD candidates is to compete on the international job market with students from programmes with a longer duration. Going on the international job market 3.5 years into the programme is usually a handicap. Hence, the students could benefit from being funded another year, allowing them to attend the market 4.5 years after the program start. The Department of Economics therefore offers (when funding is available) a 5th year of stipend for very promising students that aim to go on the international job market and who would have completed the PhD within the 4 years of the original contract duration. The stipend is a 50 percent position as a lecturer and involves teaching. These positions are costly for the department as the department uses one of the permanent positions allocated from NHH to fund these stipends.

External funding
Several students are funded (for three years during their PhD period) through external funding. This funding is usually from the Research Council of Norway or through ERC grants. Currently, 13 students are funded through grants. These grants allow the department to choose the candidate freely, only the topic the candidate will work on is linked to the project. During the past years, the department did not receive funding tied to a specific candidate (e.g. industrial/public sector PhD).

Placement

Placement record since 2018

- Charlotte Ringdal, Postdoc, University of Amsterdam
- Oddmund Berg, Researcher, Statistics Norway (SSB)
- Serhat Ugurlu, Oxera Consulting LLP
- Luca Picariello, Assistant Professor, University of Naples Federico II
- Ingrid Hoem Sjursen, Researcher, Christian Michelsen Institute after postdoc at Stockholm School of Economics
- Øivind Schøyen, Associate Professor at University of Tromsø after postdoc at Hitotsubashi University
- Antonio Dalla Zuanna, Reseacher, Bank of Italy after postdoc at Institute of Fiscal Studies
- Ranveig Falch, Postdoc, Max Planck Institute Bonn
- Xiaogeng Xu, Postdoc, Hanken School of Economics
- Ingar Kyrkjebø Haaland, Postdoc, University of Bergen
- Erling Risa, Senior risk analyst, Sparebanken Vest
- Sandra Halvorsen, Senior advisor, Kirkens Nødhjelp/Norwegian Church Aid
- Timothy Wyndham, Teacher of Economics and Business, King Edward's School
- Ole-Andreas Elvik Næss, Postdoc, Centre for Applied Research (SNF)
- Fehime Ceren Ay, Researcher, Telenor Research
- Sara Abrahamsson, Postdoc, Norwegian Institute of Public Health
- Stefan Meissner, Analyst, Factworks GmbH
- Charlotte Bjørnhaug Evensen, Oslo Economics

Placement strategy

The department's placement strategy aims to help students to achieve their career goals. Students that aim for industry jobs are helped in their job search on an individual basis. For candidates who are looking for academic positions, the department established a structured programme to help them succeed. The programme involves information meetings, help with writing/framing the job market paper, mock talks, several rounds of mock interviews, and help with finding suitable reference letter writers both in the department and outside. Funds to attend the European and US job market are provided by NHH fonds and the department (also in the year after the contract expired). The department has an appointed placement director that coordinates this effort together with the PhD coordinator and approaches potential employers for each of the candidates. Moreover, one member of the administrative staff assists students and the placement officers with a set of administrative tasks such as sending out reference letters.

The Department of Economics is part of the Scandinavian PhD Exchange that organises job market like campus visits to an institution in a different Nordic country for PhD students in their last year of the programme. The exchange ensures that PhD candidates receive feedback from another institution and get additional experience in presenting their project.

10.2.4 Department of Finance

The specialisation in finance offered at the department of finance aims to produce PhD candidates at a high academic level internationally.

The course portfolio and the programme at large

The department has recently revised and expanded the PhD course portfolio to offer one year of mandatory coursework (60 ECTS). The course portfolio gives students broad theoretical and methodological training in finance and aims to familiarise them with the research frontier. The department also offers ad-hoc courses taught by leading scholars during shorter research visits at NHH. In addition, students can take courses offered through the Nordic Finance Network, for which travel funding is available.

Upon entering the programme, students receive a mentor assigned by the department. The mentor helps guide the student through the course programme and identify a suitable faculty member to supervise the thesis. After the first years, students should find a supervisor matching their research interests.

Students are required to submit summer research papers after the first and the second year. The summer papers have proved to be valuable in the transition from course work to research. At the end of the third year, a presentation of the whole research proposal (the dissertation) is due. There is funding available for conference presentations and extended visits abroad, of which many students take advantage. Also, it is not uncommon for PhD students to have at least one research project joint with a faculty member.

It takes substantial resources to offer the entire PhD course portfolio every year. The department lacks the resources to offer the PhD course programme in finance every year. Consequently, the department has reduced the frequency of the intake and, since 2015, admits students and offers the course portfolio only every two years. The biennial admission also has the advantage of making each PhD cohort larger, which creates a better academic and social environment for the students in the programme.

In the selection process, the assessment of candidates focuses on their prospects to meet the international standards required to start an academic career upon graduation. An essential step in the selection process is individual interviews with candidates. We ask each candidate to read a well-published research paper in advance and discuss it during the interview. Since 2015, the department has admitted 12 new PhD candidates: two in 2015, six in 2017, and four in 2019. Five new students will start in the fall of 2021, of which three are female, three are NHH graduates, and four are international.

NHH employs all PhD students as research scholars for four years, giving them a generous salary. Since students typically need at least five years to be competitive in the academic job market, most PhD students extend the funding to five years by reducing their research-scholar position to 80 percent. Of the 12 PhD students currently in the program, ten hold research scholar positions, while two have run out of funding.

FIN recruits the best Ph.D. students it can get. As a result, the vast majority of Ph.D. students are international. FIN values the different experiences that the Ph.D. students bring and considers the Ph.D. program an integral part of the research activity in the department. Thus, while NHH's owner (the Ministry of Education and Research) has asked the institution to recruit more Norwegian candidates, FIN views the unconstrained admission of Ph.D. students as critical to its ambition of becoming one of the leading finance groups in Europe.

Placements

Academic placement is the most central criterion for evaluating the quality and success of the PhD program. It is a function of the quality of the dissertation (the job market paper) and the candidates' performance in the hiring process. The department, therefore, actively helps the students to prepare for the academic job market. Graduating PhD students share their experiences from the job market with younger cohorts. Faculty perform mock interviews and give the students a dry run of their job-market talks. Also, students attending the AFA conference before their job market can participate in the department's interviews to understand the process better. Several of the PhD students have received the AFA PhD student travel grant or funding from NHH funds to participate in the AFA conference ahead of their job market.

Since 2016, 12 of the PhD candidates have defended their thesis. The candidates and their placements are listed in the table below.

List of PhD candidates that have defended their thesis and placement 2016 – 2020

PhD	Name	Placement
2020	Johan Mellberg	Researcher, Swedish Social Insurance Inspectorate
	Loreta Rapushi	Assistant Professor, BI Norwegian Business School, Bergen Campus
	Negar Ghanbari	Assistant Professor, University of Aarhus
2019	Xiaoyu Zhang	Assistant Professor, VU Amsterdam
	Giovanni Bruno	Scientific Beta (affiliated with EDHEC Business School, Nice)
2018	Erik Hetland Tvedt	Analyst, EY
	Varun Verma	CFO, Horda, Bergen
2017	Yun Tang	Economist, OECD Paris
	Raffaele Giuliana	Economist, Central Bank of Ireland
2016	Kamil Kladivko	Associate Senior Lecturer, Örebro University School of Business
	Chunbo Liu	Assistant Professor, Southwestern University of Finance and Economics, China
	Jens Sørlie Kværner	Assistant Professor, Tilburg School of Economics and Management

In the past five years, the department has successfully placed about one-third of the students in tenure-track positions at good academic institutions, such as the Southwestern University of Finance and Economics (China), Tilburg University, VU Amsterdam, and the University of Aarhus. More importantly, through the revamping of the PhD programme, the newer cohorts of PhD students are increasingly geared toward an international academic career. The department sees a continued improvement in the ambitions and attributes of its PhD students, reflecting the increasing quality and publication record of the faculty.

10.2.5 Department of Professional and Intercultural Communication

Admission

The qualifying education for the Department of Professional and Intercultural Communication applicants is a master's degree in one of the languages taught at NHH (English, French, Japanese, Spanish or German, or Norwegian as a second language) or in professional or intercultural communication. A master's degree in related fields such as management studies will also be considered, if combined with a relevant higher educational background in one of the languages mentioned. There is also a requirement of some formal education in economics, business administration or other social sciences. In the selection of candidates, emphasis is put on the quality and topical relevance of their research proposal and its relevance for the department's research areas. This is in keeping with the department's recruitment strategy for PhDs, which concentrates on educating PhD research scholars that have a business education background together with their linguistic specialisation. Applicants are assessed by an internal committee.

The department announces its PhD positions broadly on websites and email lists and in our various networks, and via the ordinary channels used by all of NHH. The department seeks to obtain a good balance between international and domestic research scholars.

We have been successful in recruiting qualified candidates for all our current positions, but on some occasions, it has been challenging to find candidates who match the qualifications needed for a specific doctoral position. The research background of the candidates should reflect the department's interdisciplinary research profile within professional and intercultural communication. The candidates must have competence in language and communication and also a good understanding of communication in business contexts and, ideally, also of Norwegian or another Scandinavian language, as this will enable the research scholars to contribute more broadly to the department's teaching obligations as part of their work duties, which amounts to 25% of their 4-year scholarship period.

The formal admission requirements are the same as for NHH generally, although a waiver of the GMAT requirement is routinely granted.

Despite the challenges mentioned, the department has succeeded in recruiting a cohort of excellent PhD research scholars in the reporting period.

Courses

A consequence of the interdisciplinary nature of the department's research profile and the PhD research scholars' projects is that the totality of PhD courses offered by NHH does not fully match the needs of our research scholars. Therefore, they routinely join courses, conferences and workshops at other national and international institutions. All research scholars succeed in finding relevant and high-quality courses to fill the portfolio requirement of 45 ECTS. The department's collaboration with other institutions on course offerings and participation in organised PhD course networks is crucial in this respect. Through active participation in (partly also the leadership of) the Research Council of Norway funded Norwegian Graduate Researcher School in Linguistics and Philology (https://www.ntnu.edu/lingphil), our research scholars have access to a wide range of courses. This includes courses in methodology, statistics, transferable skills and other courses that are highly relevant to their projects and future careers. The department has also organised more targeted courses for our research scholars under the auspices of LingPhil. Given the international focus of the department, the students are strongly encouraged to carry out some of their coursework abroad. The department offers one PhD course on a regular basis, MET513 Academic writing in a research setting; this is obligatory for our research scholars, along with a course in research ethics and a philosophy of science course.

The progression of our PhD research scholars with respect to their course portfolio is satisfactory on the whole, and research scholars generally succeed in completing all coursework within their first two years.

We still see that the course offering could be improved with regard to certain aspects of academic life, especially applied skills such as career guidance and training in writing applications to funding agencies for research projects.

Supervision

The supervision capacity at the department is generally sufficient for our quota of research scholars, but it may be a challenge to find qualified co-supervisors in highly specialised areas. Some research scholars have a combination of internal and external supervisors. The department is working towards increasing the number of potential supervisors.

Although the coronavirus has led to some adjustments in the research scholars' plan of milestones, the thesis progression of our PhD students is generally good and the majority of research scholars are on track.

Our research scholars report that the quality of supervision is generally good, and they have seen a positive development towards better mutual alignment and clarification of expectations early in the PhD scholarships. They express a wish for better integration across the different departments at NHH, socially as well as academically, and members of our cohort have worked actively towards this goal via the establishment of an organisation for PhD scholars.

Funding

The department has a regular quota of 3 PhD positions, which is considered a reasonable number given the size of the department. However, the department faculty is continuously working towards extending our cohort of PhDs by seeking to recruit an additional 1-2 externally funded positions. This is done by coordination of and participation in applications to the Research Council of Norway and the EU's Horizon Europe. With regard to the latter, a planned project within Marie Skłodowska-Curie Actions is coordinated by NHH. The department has succeeded in recruiting a candidate via such funding in a previous instantiation of the European Commission's research programme.

Placement

The department's record of placement during the period of reporting (2016-2020) is satisfactory. All research scholars who have completed their degree since the launch of the department's PhD programme report that they have obtained relevant positions in academia. There are, however, no research scholars who have been employed in other sectors.

The department sees the need for a more proactive placement strategy for the benefit of our research scholars. This need is also expressed by the research scholars themselves, who have suggested several initiatives that may improve their placement opportunities. Among the proposed measures are:

- career services and events offered by NHH targeted towards the need of PhD research scholars
- permanent structures to facilitate coordination between research scholars across departments
- regular transferrable skills seminars
- mentoring luncheons hosted by the department where former PhD research scholars within relevant fields of research present their career paths and answer questions from current PhD research scholars and other junior faculty. The goal would be to show current PhD research scholars the panoply of different opportunities that exist, both within academia and outside, after they have completed their PhD.
- improved information about opportunities for researcher mobility and industrial internships
- better clarification of the responsibility assumed by NHH during the period between submitting the PhD thesis and the doctoral defence, and possible funding of temporary employment during this period.

10.2.6 Department of Strategy and Management

The Department of Strategy and Management covers a wide range of research areas such as marketing, strategy, organisation and management, organisational behavior and leadership, and information systems, and the department has PhD candidates within all of these areas. The department has currently about 30 PhD candidates. The department has over the last years implemented many changes to improve the PhD programme in relation to recruitment of PhD candidates, streamlining the course portfolio, securing quality supervision and progress, and improving the social environment and integration.

Admission

The department's PhD student recruitment strategy

The aim of the recruitment strategy is to find a match between excellent candidates and the research areas of potential supervisors and research groups. We want to make sure that our PhD students can be linked to ongoing research activities at the department and that they have assigned supervisors as they start in the program.

The recruitment process follows a seven-stage model:

1. The department invites faculty who are seeking a PhD student to specify a research topic in advance of the announcement of PhD positions.
2. These topics are announced as part of NHH's announcement of PhD positions.
3. All applicants are screened based on their grades, the relevance of their master's degrees and if they have a research proposal within one of the announced research topics. We usually have a list of approximately 20 relevant candidates after this initial screening.
4. Prospective supervisors evaluate these candidates in terms of their qualifications and relevance of research proposal.
5. Those candidates who are considered qualified and relevant are invited to an initial interview with the prospective supervisor(s) and the PhD coordinator.
6. The best qualified and most relevant candidates after the initial interview are invited for a second interview. The aim of this interview is to test and verify the candidates' analytical and verbal skills. We send an academic article to the candidates two days ahead of the interview and we ask the candidates to prepare a presentation of the article. The candidates then present the article in the interview followed by a discussion of the article. Thereafter, the candidates are given a written assignment which is related to the article and they have two hours to complete the assignment. If possible, this second interview takes place physically at NHH, and the interviewees have also an opportunity to meet PhD students and faculty at the department.
7. The final selection of candidates is based on an overall evaluation of the candidates' research potential with reference to their grades, quality and relevance of research proposal, presentation and discussion of the academic article and the written assignment. In addition, we consider the gender balance and that there is a good distribution of PhD students across the department's research areas/research groups.

Applications and enrollment

The department has over the last four years received a high number of applications to the PhD programme as shown in the table below.

Applications and admitted PhD students

Year	Number of applications	Number of admitted students	Funded by NHH	Externally funded
2018	160	6	5	1
2019	269	6	4	2
2020	182	7	5	2
2021	220	5	4	1

Since we have a high number of applications and only a limited number of PhD research scholar positions, the admission process is demanding and challenging. The quality of the applicants varies from year to year, but we had many well-qualified applicants in the 2021 admission. We have a good gender balance (about 50/50, slightly more females than males) and a good balance between Norwegian and international students (about 45/55). We have over the last years had a goal of increasing the awareness and interest of the PhD programme among master's students at NHH, and we have succeeded in recruiting some of our top master students into the PhD programme.

We are overall satisfied with our recruitment strategy, and we find that the seven-stage recruitment process secures a thorough evaluation of the short-listed candidates invited for interviews.

Onboarding of new PhD candidates
NHH centrally takes care of many onboarding activities, such as helping foreign candidates with visa applications, housing, etc. In addition, the department has a welcoming day where we inform the new candidates about the PhD programme and the department. We also introduce the new candidates on faculty seminars and information meetings, and we have a meeting where an experienced PhD candidate shares his/her experiences and how to overcome the most common hurdles.

However, we experience that it takes time for many new candidates to get acquainted with both the role of being a PhD candidate and how things are organised at the department. We are therefore in the process of developing a more comprehensive onboarding programme.

Courses

Due to the broad scope of research areas that the department covers and a limited number of PhD students within each area, we have focused on developing courses within research methods as these courses are relevant for all our PhD students.

The department offers five PhD courses on a regular basis, which are currently compulsory for all our PhD students:

- Foundations and frontiers of management (7,5 ECTS, fall semester, bi-annual)
- Research design and methodological choices A & B (7,5 ECTS, fall semester)
- Multivariate data analysis (7,5 ECTS, spring semester)
- Qualitative methods (7,5 ECTS, spring semester)
- Theory and research evaluations (5 ECTS, spring semester)

Two new courses were also offered in the academic year 2020/2021:

- Applied analytics in strategy and management (2,5 ECTS, fall semester)
- Entrepreneurship and strategy (5 ECTS, spring semester)

These two new courses were well received by the students and they will most likely be re-offered.

The course on Foundations and frontiers in management gives an overview of theories and current research frontiers within the different research areas at the department. The aim is to give the students an overview of our cross-disciplinary research fields. Since this is the only theory-based course given on a regular basis, we encourage our students to attend at least one theory-based course within their research area at other institutions.

The number of students attending the courses are usually between 10-20. The courses within research methods attract students from other Norwegian institutions as well as from foreign institutions. We are overall satisfied with the course portfolio, and student evaluations of the courses confirm a high level of satisfaction. We acknowledge that we cannot offer specialised theory-based courses within all our research areas due to a limited number of students, and we have good experiences with sending our students to other institutions. In addition to choosing tailor-made courses for their thesis, they also become familiar with how PhD studies are organised in other institutions/countries and they can build networks to other PhD students. All our PhD courses in the academic year of 2020-2021 have been offered online due to the Covid-19 pandemic. A positive side-effect of online courses is that it is easier to attract students form other institutions, which may make it easier to offer specialized theoretical courses in the future.

We encourage our candidates to attend as many courses as possible during the first year and complete all course requirements by the end of the third semester. Most of our students complete the course requirements in due time, and we experience few difficulties related to completing the course requirements.

Supervision

All candidates have one principal supervisor as they start in the PhD programme, and one co-supervisor is usually appointed within the first or second year. We also encourage our candidates to have one international co-supervisor to secure that the candidates are supervised at an international level. We use a mix of internal and external co-supervisors depending on the candidates' research areas. As we include our candidates in the department's research groups, the candidates are also supervised by "supervision teams" as several faculty members are usually involved in the research projects that the candidates are associated with. We also encourage our candidates to co-author papers with their supervisors and other faculty members.

Since we recruit candidates into the PhD programme based on the research interests and supervision capacity of the faculty members, we secure that we have relevant and necessary supervision capacity as the candidates start in the programme. We involve younger faculty members as co-supervisors before they are given responsibility to start as principal supervisors to secure that they can learn from more experienced supervisors. We acknowledge that it takes time to become a good PhD supervisor and a need for formal training. Several of our younger faculty members will therefore attend the course on "Fundamentals of PhD supervision" that NHH offers in the spring of 2021.

The PhD coordinator has individual meetings with all PhD students twice a year in the first years of the programme and once a year later in the programme. We discuss in these meetings the progress in completing the training component and the thesis progress.

We have the midway evaluation (proposal defence) at the end of the third semester. The evaluation committee consists of the principal supervisor, co-supervisor and one person not involved in supervising the candidate. The focus is here on the candidate's first paper, and the aim is to evaluate both the quality and the progress of thesis. If we experience problems related to quality or progress, we support with additional supervising capacity in accordance with the guidelines for the midway evaluation.

We strongly encourage our candidates to attend PhD colloquiums both nationally and internationally. Here they receive useful feedback on their research papers and meet other PhD students working on similar topics and build networks for the future.

We are generally satisfied with the way we have organised PhD supervision. By having a principal supervisor, at least one co-supervisor and a "supervising team" from their research groups, we secure that the candidates' progress is monitored and supported. In addition, the department through the PhD coordinator is in close contact with both the candidates and the supervisors.

Funding

Most of our PhD candidates are fully funded by NHH for four years including 25% duty work for the department. We have usually four/five PhD Research Scholar positions funded by NHH each year. In addition, we have external funding from research projects where we are free to select the candidates and industrial PhDs where funding is tied to a specific topic and a specific candidate. The availability of external funding varies from year to year. The candidates funded by external research projects are usually funded by three years by the project and one year by NHH, and they will also have 25% duty work for the department. Industrial PhDs are sometimes funded by three years (without duty work) and sometimes by four years including 25% duty work for the company. Overall, we experience that we have sufficient funding for the number of candidates that we currently have capacity to admit into our PhD programme.

Most candidates will need additional funding for data collection or other activities during the programme. Our two main sources are internal funds for research and external research projects.

Placement

Most of our PhD candidates have historically started to work in Norway, and the majority has been recruited by universities, colleges, and research institutions, while some candidates have been recruited by companies. Recent graduates have been employed by NTNU, BI Norwegian Business School and Kristiania University College. Some graduates have also been recruited into post doc positions at NHH.

As the academic job market is becoming more and more international, our goal is to deliver candidates to the international market. However, the department has not implemented any formal placement strategy or activities. We inform about open positions and provide individual help and support in the application process. We acknowledge that we have had limited focus on placement, and this is an area where we need to be more active in the coming years. We need to prepare our candidates for the international job market and support them to be active on international job market conferences.

Assessment of progress

As described above, we follow and monitor the candidates' progress closely. However, we experience that some of our PhD candidates are delayed and do not complete the thesis within the time of their scholarships. The table below shows the number of PhD defences the last six years.

Number of PhD defences 2015-2020

Year	2015	2016	2017	2018	2019	2020
Number of PhD defences	5	3	2	1	6	2

Two common reasons for delayed progress are (1) collection of primary empirical data or access to secondary data are more challenging and take longer time than expected, and (2) increased requirements for having papers accepted in top journals. In addition, some candidates who have submitted the thesis for evaluation are asked by the evaluation committee to make revisions before the thesis is finally accepted for defence. The current Covid-19 pandemic has also caused progress delays.

Our goal is that 75% of the candidates should complete their thesis within four years and that all candidates should complete within six years. However, a three-year PhD programme (plus one year with duty work) is short compared to other international PhD programmes, and we acknowledge that it is challenging for the candidates to complete a thesis that has the potential for being published in top journals within this time frame. Our goal may therefore be difficult to realise. However, based on the measures described in the sections above, especially how we have organised supervision and including the candidates in research groups, we have now better control of the thesis progress and can take actions when necessary.

Social environment and integration

The social environment is important for the PhD candidates. We have candidates from many different countries and with different cultural backgrounds. The candidates organise themselves regular social events, and they have also regular workshops where they discuss different PhD related topics and share ideas and experiences. With extensive work from home offices during the Covid-19 pandemic, the social situation has been difficult for many of our PhD candidates especially for those with a limited social network in Bergen.

Conclusion

We find that the measures implemented during the last years have strengthened our PhD programme. We have a solid recruitment strategy and process, a course portfolio that is well evaluated and relevant for our candidates, a good structure for organising supervision, and a good funding situation. Our main challenges are related to improving onboarding and placement and increase the number of candidates completing the PhD program within four years.

10.3 Appendix: PhD Student Survey 2021

The purpose of the PhD student survey is to learn from the experiences and views of the PhD students currently enrolled in the NHH PhD programme in order to further improve and develop the PhD experience at NHH.

The Office of Research Administration at NHH distributed the survey 18 April 2021 by email to the respondents by using the departments' email address lists for the PhD students. The survey was closed in May 2021.

111 PhD students received invitation to participate in the survey, of which 61 replied. The response rate was 55%. Given the relatively low number of survey participants, the results need to be interpreted with caution.

PhD students in the PhD programme at NHH

In July 2021, a total of 115 PhD students at NHH had an active status in our student record system, and 10 of these students had submitted their thesis for evaluation. In total, 41% (n=47) were women, and 59% (n=68) were men. The mean age was 33 years. Table 4 shows the number of active PhD students in the programme per department and the corresponding number of respondents in the survey.

Table 4 Number of active PhD students and number of respondents in the survey per department

Department	Number of PhD students	Number of respondents
Accounting, Auditing and Law	14	5
Economics	25	16
Finance	12	5
Business and Management Science	25	15
Professional and Intercultural Communication	4	4
Strategy and Management	35	13

The survey respondents

In total, 95% of the respondents started in the PhD programme during 2017-2021 and are in their four-year period where they have funding.

There were more non-Norwegians (59%) compared to Norwegians, furthermore there were 42% women and 58% men participating in the survey.

The majority of the respondents are admitted to the programme at the department of Economics, the department of Business and Management Science and the department of Strategy and Management.

The educational background of the respondents showed that 43% had obtained their master's degree from NHH. The respondents generally agreed that their master's degree prepared them well for studies at the PhD level[16]. The survey asked the respondents to specify topics/subjects they should have been better prepared in, and the following were reported: Methods (33%), Statistics (30%), Mathematics (16%), None (7%), and the remaining 15% reported other courses.

Experience of being a PhD student

The following subsections deals with the experiences of being a PhD student in relation to the training component, thesis work, supervision, duty work, feedback on barriers, frustrations, challenges, and benefits.

Training component

The survey asked the respondents to assess the PhD courses they had completed, both internal courses at NHH and courses at other institutions, abroad and in Norway. In total, 77% of the respondents had attended one or more courses at other institutions. The quality assessment of the courses indicates that the PhD students generally were satisfied with both in-houses courses and external courses. On a five-

[16] On a five-point scale, where 1=not well, and 5= very well, the mean score is 3.86.

point scale (1=very low, 5=very high) the mean score of the overall quality of the in-houses courses and externally courses showed 3.58 (SD=0.92) and 3.93 (SD=0.94), respectively. The opportunity to sign up for external courses was seen as good (mean score of 3.93). The PhD students were also asked to score the in-house courses regarding their thesis work (mean score of 2.96 and SD=1.09). Also, 72% reported that there were courses that they missed at NHH when asked in an open-ended question. The responses were categorised into the following topics: courses in methodologies, courses related to topics in economics and business administration, academic writing, career guidance, presentation skills and other.

Seminars for academic writing included suggestions like how to develop a paper, how do deal with revisions from journals and getting feedback on own work from faculty and peers. Moreover, seminars on presentation skills, how to write abstracts, conference proposals and how to write for mediums of communication e.g. newspapers, were mentioned. Also, it was suggested to arrange seminars to discuss research where the field of study is in focus, and a possibility to discuss new topics and trends - what to research next, where the attention is to be directed to fulfil the requirements of making a contribution in the field. Furthermore, it was suggested to arrange seminars for late-stage PhDs about the process of submitting the thesis for evaluation, how to write the introductory chapter and preparing for the public defence.

Thesis work

In this part, the survey focused on participation in a research groups, the mid-way evaluation and presentation of own research work.

In total, 80% of the respondents were members of a research group. Affiliation to a research group seemed to be valuable, mean score of 4.07 (SD=1.18) when asked to assess it on a five-point scale.

The respondents were asked when they started to work on their thesis (Table 5). In total, 68% of the respondents find their research topic highly interesting, moreover 65% report to be on track when asked about progression in their PhD studies.

Table 5 Semester when respondents started to work on their thesis

Semester	%
First semester	34
Second semester	34
Third semester	25
Not started yet	7

All PhD students must pass a midway evaluation, normally by the fourth semester. The midway evaluation is an arena where the PhD students get feedback on their research work. In total, 63% of the respondents had passed their midway evaluation. The survey asked the respondents to rate the usefulness of the feedback on a five-point scale, the results are presented in Table 6. There were several respondents that commented that the midway evaluation works well and one respondent commented the following *"….It is an opportunity to discuss and brainstorm research with my supervisor and other faculty and to get constructive feedback. In this early stage, feedback from senior faculty is very important so that I can develop my research in the right path".*

Table 6 Usefulness of feedback

Feedback	Mean score
The feedback provided useful input for further developing my thesis	3.20 (SD=1.30)
The feedback confirmed my research path, or provided necessary adjustment to my research	2.97 (SD=1.13)
The feedback was useful for confirming or developing my presentation skills	3.29 (SD=1.47)

The respondents also suggested improvements to increase learning, such as: more supervision before the presentation, receive written feedback after evaluation, appoint a few faculty members or an international evaluator with specific knowledge in the field to evaluate the presentations.

The respondents were asked if they have presented their research in different arenas and to rate if the feedback on their research work was useful (on a five-point scale), the results are presented in Table 7.

Table 7 Presentation of research work

Arena presented	Yes	No	Mean score
At the department/NHH	70%	30%	3.95 (SD=1.05)
Other, national institutions	33%	67%	3.67 (SD=0.88)
Internationally	38%	62%	4.10 (SD=0.87)

Supervision

The respondents answered several questions about supervision. Overall, the PhD students seemed satisfied with the supervision they receive, especially from their main supervisor. The mean scores on a five-point scale for the main supervisor and co-supervisor(s) were 4.57 (SD=0.78) and 4.20 (SD=1.05), respectively. The respondents were able to give general comments about supervision. One respondent stated that the supervision worked well, one advice was *"...perhaps there should be some structures in place to make sure that supervision is good for both the professor and the student…"*. There were a few respondents that stated that they had good supervision from their main supervisor, but less contact with their external co-supervisor. Another comment was *"All supervisors should have an "expectations vs. reality" meeting in which both the PhD scholar and the supervisors express explicitly their job and what you can expect from them"*. The respondents were asked to rate the statements in Table 8 on a five-point scale.

Table 8 Assessment of supervision

Statement	Mean score
The supervisor responds timely to my request	4.57 (SD=0.90)
The supervisor has good knowledge of current research within my thesis topics	4.36 (SD=0.98)
The supervisor provides useful and constructive feedback	4.59 (SD=0.75)

Duty work

Most of the respondents (91%) have been involved in duty work, see Table 9. The "other" category included work such as: making podcast, promoting the PhD programme on career fairs, presenting for incoming new PhD students, supervising CEMS projects, and experiments in courses. When asked to assess the workload of the work duties during a semester as a share of a normal work week (37.5 hours) on a five-point scare (1=much less than 25%, 3=about 25%, 5=much more than 25%), 41% assessed the workload to be about 25%.

Table 9 Duty work

Duty work	%
Other TA tasks such as answering questions, developing learning materials	24%
Grading	35%
Teaching	27%
Supervising master students on their thesis	7%

Feedback on barriers, frustrations, challenges, and benefits

When asked if they had considered to quit the programme, 67% of the respondents answered "No". In the survey, the respondents were asked open-ended questions about the following: the greatest barriers to finish their PhD within the stipulated time, main frustrations and challenges in their PhD work, and the primary benefits of the PhD programme. The main feedback on these open-ended questions is commented on below.

The greatest barriers to finish their PhD within the stipulated time

> Some respondents did not see any great barriers for the time being. One answered: "*For the time being, I feel confident that I will be able to finish my PhD within the stipulated time. However, as a first year PhD student, it is still early-days..*".
>
> Covid-19 was reported frequently as an issue both when asked about the greatest barriers to finish their PhD within the stipulated time and asked about main frustrations and challenges in

their PhD work. The pandemic made it difficult to plan ahead, and the inability to travel on research stays, conferences was reported to cause delays on their research work and networking. Working from home was not optimal and resulted in lower productivity, and some reported they felt more stressed, lonely, and detached from the work environment and support they have when they are at the office.

Data collection and access to data were reported by several of the respondents as a barrier to finish within the stipulated time. Other issues that were mentioned were more follow-up and specified deadlines for the thesis work to stay on track. One student stated: "*I need regularly follow-up meetings and deadlines to make sure I don't stand still too long when I hit a problem in my work".*

Main frustrations and challenges in their PhD work

The respondents revealed several areas of frustrations and challenges in their PhD work, and the main responses can be clustered into categories related to the training component, thesis work and social issues. Yet, some reported they did not experience any particular type of frustration, at least not yet.

PhD courses was reported as an issue for main frustrations and challenges. The main frustrations and challenges were related to the workload of courses the first year, resulting in not much available time to work on the research/thesis. Moreover, some thought there are too many mandatory courses and lack of flexibility in choosing courses, while others reported lack of relevant courses during the first year. However, when asked about the primary benefits of the programme it was highlighted by some that the courses offered at NHH are of high quality and gives a comprehensive training in methodology. Also, the opportunities to take courses at other institutions, was reported as an appreciated benefit.

In connection with the thesis work, challenges and frustrations were related to vagueness of evaluation criteria for the papers in the thesis including the introductory chapter. One responded the following about the introductory chapter: *"...Although the vagueness gives flexibility and allows for following traditions within the different fields, it also creates uncertainty to whether one fulfils the implicit criteria..".* Also, issues regarding the thesis work were related to different aspects of the process how to develop a paper such as: how to find a research gap and implement research ideas in an innovative way, and confidence in making the right scientific choices along the way. It was suggested to add more teaching with focus on how to develop a research paper and this could lead to better confidence in the planning and building of their own papers.

A few also commented on "time", and it was mentioned that time runs fast, and it is not always easy to structure their time properly, and this can be challenging. Moreover, with regards to social issues some respondents reported that taking a PhD can become lonely sometimes, and better follow-up socially and initiatives for socialisation between PhD students, would have been appreciated.

Primary benefits of the PhD programme

When we asked the respondents what they consider to be the primary benefits of the PhD programme at NHH, the most frequently mentioned benefit was funding of the PhD Research Scholar positions. Also, funding opportunities for taking courses at other institutions, research stays abroad and participation in conferences were appreciated and highlighted as a benefit of the programme. One respondent answered: *"..Possibility of personal development with participation at conferences, courses, and summer schools, which are all well encouraged..".*

Several of the respondents highlighted the work environment as a rewarding benefit. This includes a description of highly competent faculty, supportive environment, and being part of good research groups. One respondent stated: *"...to be considered as a faculty member and to be involved in any kind of discussion without any hierarchical levels.."*, was rewarding. While another mentioned *"..Possibilities for a PhD work environment across the departments (a lot of* *unrealized potential in having cross departmental seminar or social events)..".* Also, the academic reputation of NHH was mentioned.

Career guidance and expectations for future career

The majority of the respondents plan for a future career in academia (60%), while 37% plan for a future career outside of academia. Table 10 summaries the evaluation of career guidance activities.

Table 10 Attendance and usefulness of career guidance activities

Activity	Mean score usefulness (five-point scale)	Number attended	Number not attended
Seminar on academic job markets early in the programme	3.32 (SD=1.05)	25	35
Mock interviews	3.27 (SD=1.35)	11	50
Seminar on or practice in presenting job market paper	3.47 (SD=1.36)	15	45
Academic CV writing workshops	3.47 (SD=1.31)	15	44
Guidance for individual profiling on webpage	3.36 (SD=1.39)	14	44
General career guidance	3.47 (SD=1.20)	15	45
Courses/seminar on transferable skills	3.27 (SD=1.34)	15	44
Others	5 (SD=0)	2	19

10.4 Appendix: PhD Graduate Survey 2021

The purpose of the PhD graduate survey is to get more information about how the PhD graduates view the PhD education at NHH and their career afterwards, and to identify areas of improvement.

The Office of Research Administration at NHH sent the survey by email to the respondents 10 May 2021 and the survey was closed in June 2021.

The survey was sent to those who have completed their PhD at NHH between 2016 and 2020. The total number of respondents, who graduated in this period was 88, all of whom were invited to participate. In total, 25 out of these responded and gave consent to participate in the survey. The response rate was 28%. Due to the GDPR regulations we used the information of personal email addresses that are in our student's records system that was registered at the time of admission in the programme. One of the reasons for the low response rate, might be due to the wrong contact information e.g., email addresses that are no longer in use.

Given the small population size, the results require interpretation with caution.

Background of the respondents

The respondents were asked which year they were born, and the mean age of the respondents is 39 years. However, one category was "born before 1970", which three of the respondents reported and thus they are not counted in the mean score. In total, 68% of the respondents are men. Furthermore 36% of the respondents reported they are foreign (non-Norwegians).

Table 11 Number of respondents per department

Department	Number
Accounting, Auditing and Law	4
Economics	6
Finance	2
Business and Management Science	6
Professional and Intercultural Communication	1
Strategy and Management	6

Career development after completing the PhD degree

In total, 60% of the respondents reported they received their first job before completing their PhD degree, while 32% reported they received their job 0-6 months after completing their PhD degree. All respondents reported they are currently employed.

In total, 65% of the respondents report they have been or are currently employed in Norway. However, 47% of the respondents working in Norway had considered a career outside Norway and the main reason for this was "Better career opportunities" (63%). The respondents were also asked, why they did not consider a career outside of Norway and the two main reasons were "Closer to family/relatives/other personal relations" (29%) and "Better working conditions in Norway" (21%).

Of the 35% that reported to have been or currently are employed outside Norway, the main reasons to pursue a career abroad were "Lack of available positions or job offers in Norway" (44%) and "Closer to or in home country" (33%).

In total, 48% report the current job is the first job they received after completing their PhD degree. Regarding starting salary including economic benefits in the first job: 54% had a starting salary in the range of NOK 400 000- NOK 600 000, 31% had a starting salary of NOK 600 000-NOK 800 000, and the remaining part had a starting salary below NOK 400 000.

When asked which sector they received their first job (n=14), 85% reported they have a job in the University/Research sector. However, when asked where they currently work (n=25), only 68% report to work in the University/Research sector and 28% report to work in the private sector.

Experience of taking a PhD at NHH

The survey asked what knowledge and skills acquired from the PhD programme that have been most useful in their current job? One respondent put it this way *"Almost all my skills relevant to my current job were acquired at NHH. I am very happy and satisfied with what I learned during my PhD. I felt it was up-to-date knowledge, relevant and exciting to learn".* Other points mentioned were research skills, research methods, analytical skills, programming, and the publications process.

When asked about the relevance of their PhD in relation to their current job, 85% of the respondents answered highly relevant on a five-point scale (1=irrelevant, 5=highly relevant). The respondents were asked if they had benefited in their current career path from training in different areas in the PhD programme on a five-point scale (1=none, 5=a lot). The mean score on the five-point scale were the following:

- Presenting: 3.52
- Writing proposals: 3.32
- Career guidance: 3.12, and
- Teaching: 3.0

In total, 64% reported to have been part of a research group and 50% rated the value to be part of a research group as *very valuable*, however 13% reported being part of a research group as *not valuable* (1=not valuable, 5=very valuable).

Also, the respondents were asked in open-ended questions if they had suggestions for how NHH can reduce the average time from start to defence and if they had recommendations for improving the PhD programme. Since the responses for those questions were overlapping, the results are presented together. The responses are categorised and are summarised below.

Supervisory and scientific matters

> The respondents suggested more frequent interaction and follow-up between the student and supervisor, but also with the PhD coordinator at the department. It was also mentioned that it would be useful to get help to prioritise what is important and less important to spend time on. Starting to write their thesis in the first year possibly in collaboration with the supervisor or other members of the faculty. The supervisor/department should be better to involve PhD students in research projects, listen to the research interests PhD students have, and more inter-disciplinary scientific approaches.

Programme matters

> Information about requirements and processes could be clearer. A better plan for the thesis work earlier in the programme and more strict milestones regarding paper development were mentioned. Career guidance from both from people in academia, but also from people outside academia.

Social events and psychological stress:

> It was suggested to have more social events including areas for discussing research in a social setting. Also, more events for the PhD students across departments. It was mentioned that the PhD is tough in many aspects and PhD students often feel lost, stressed, and alone, therefore it might be useful to help reduces stress.

When asked an open-ended question about what they consider the primary benefits of the PhD programme, flexibility and structure of the programme were mentioned. In addition, high standards were mentioned both regarding the programme, but also when describing the people at the school. Moreover, it was highlighted that the salary was competitive, and the departments were supportive and colleagues nice.

10.5 Appendix: Excerpt from NHH Annual Report 2021

This appendix includes the PhD Programme chapter from the NHH Annual Report, with reported tables, however, based on an unofficial, early translation.

NHH objective 1: Admission quality

NHH shall attract students with strong academic results and a high motivation for learning. NHH's study programmes shall be a clear first choice in the fields of economics and business administration among Norwegian students and also attract highly qualified international students.

NHH objective 3: The PhD Programme (from the chapter on research in NHH's strategy)

NHH's PhD programme shall attract the best Norwegian and strong international students. NHH shall produce more graduates who succeed in the competition for scholarly positions at recognized international institutions.

Table 12 Applicants and admission, PhD

	Results					Ambition
	2017	2018	2019	2020	2021	
Number of applications	597	576	780	684	828	-
Admission / new PhD contracts	30	22	25	22	25	-
Proportion of international PhD students (% of new PhD contracts)	63%	62%	58%	50%	72%	40-60%
Proportion of women (% of new PhD contracts)	44%	10%	42%	55%	52%	50%

Assessment of results and goal attainment

NHH aims to attract the best students from Norwegian educational institutions and highly qualified students from foreign universities. In 2021, NHH received a high number of applications, in total 828, for research fellowships at the five departments that advertised fellowships in the main application round in 2021. The proportion of female applicants was 32.5%, close to the same level as the previous year. As in previous years, the majority of the applicants were foreign nationals (98.3%). About 64% of the shortlisted applicants had taken their master's degree at a highly ranked school. Marketing and the admission process followed more or less the same pattern as previously, where the proportion of female applicants was satisfactory, and the quality of applicants was good. As in previous years, the recruitment of female students received high attention, which in the last two years has resulted in that we met our ambitions.

In 2021, 28 PhD students were accepted, however, two applicants withdrew, and one applicant quit. Therefore, only 25 new students started. The female proportion of new research scholars was 52%, a proportion which is satisfactory.

72% of the new PhD students held a foreign citizenship, where near half of these (44%) had obtained their master's degree in Norway.

NHH has thoroughly assessed the high proportion of foreign students. A main conclusion is that NHH prioritizes quality, and seeks to recruit the best candidates. However, there is still a goal set by the NHH Board, that the proportion of foreign students should be 40-60%. In marketing the positions, NHH makes efforts to recruit candidates with a master's degree from Norway.

NHH delmål 2: Quality of studies

NHH shall have a culture for quality in its education, where the administration, academic staff and students continuously strive to improve the quality of studies. Our teaching, study programmes and learning environment shall be on a par with the best international business schools.

Table 13 Quality of PhD studies

	Results					Ambition
	2017	2018	2019	2020	2021	
Number of thesis defences	12	19	17	13	17	-
Proportion of PhD candidates completing the programme within six years (%, KD)[17]	77.3%	76.2%	72.2%	81.8%	55.0%	80%
Drop-out rate (terminated PhD contracts)	2	0	2	2	2	-
Research fellowships[18]	77	74	81	89	102	-

Assessment of results and goal attainment

The proportion of PhD students completing the programme within six years has fallen to 55%. The reason for this is that a small number students in the cohort measured in 2021 have had long legally justified absences of leave. Due to small number of classes recruited each year, this has a large impact. The number of defences in 2021 was 17, which is an increase compared to the previous year. The number includes a Dr.Philos. Eight PhD candidates finished within four years, four candidates slightly above four years, and five candidates submitted their thesis after four-six years. In these numbers, the legally justified absences of leave have been deducted[19].

As in previous years, emphasis is placed on close follow-up of PhD students, both academically and administratively. As before, quality work in the PhD programme is primarily related to follow-up of individual students. Following the submission of annual individual progress reports, the Vice Rector for Research, the Office of Research Administration and the Human Resources Office hold dialogue meetings with the departments. At these meetings, each student’s progress is evaluated and individual measures implemented as needed.

In 2021, the planned programme evaluation was carried out, with surveys (to previous and current students of the programme), self-assessment reports from the Departments, an internal background report, and a digital site visit by an external committee. The committee met PhD candidates, representatives from the departments, and the leadership of NHH. The evaluation report will be presented and discussed at a NHH board meeting spring 2022. Thereafter a plan of action will be made. Moreover, a supervisor course has been held at NHH, there were many participants. The course will be further developed and offered again.

NHH objective 3: Graduate quality

NHH graduates shall be preferred in the national market for economists and managers, attractive in the international market and qualified for the best international master’s degree and PhD programmes.

NHH objective 3: The PhD programme (from the chapter on research in NHH’s strategy)

NHH’s PhD programme shall attract the best Norwegian and strong international students. NHH shall produce more graduates who succeed in the competition for scholarly positions at recognized international institutions.

Assessment of results and goal attainment

NHH focuses on «placement», with the objective that a large part of the candidates will continue their career at highly recognized research universities, or wish to pursue a career within public or private organisations and businesses. About 63% of the candidates that defended their thesis at NHH in 2021 started in their first job at a research institution. A total of 94% of the candidates stayed in Norway.

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[17] DBH data: No leaves of absence deducted.

[18] As of 1 October the current year.

[19] In 2021 8 out of 19 (42%) submitted their thesis within 4 years (number adjusted for legal absences of leave. Four students submitted their thesis within 4.5 years, thus 12 out of 19 (63%) (adjusted for legally justified absences of leave), finished their thesis within 4.5 years. In total 17 out of 18 submitted their thesis within 6 years, adjusted for absences of leave. The Dr.Philos. of 2021 is not included in these numbers.

10.6 Appendix: General Information Structure and Specialisations

NHH offers one PhD programme covering all the main research areas of the school. An overview is found in the website About the PhD Programme. Within the programme, six specialisations are offered. Each specialisation corresponds to one of the school's six departments.

- Accounting, Auditing and Law
- Business and Management Science
- Economics
- Finance
- Professional and Intercultural Communication
- Strategy and Management.

The programme is three years of full-time study, in consistence with Norwegian standards for the PhD programme. PhD students normally hold a four-year scholarship with a 25% workload, so that the normal total duration is four years. The study programme consists of two main parts:

The training component:
The training component includes the academic training that is required for work on the students' doctoral thesis, and to qualify them for professions requiring a high level of scientific insight. All specialisations include training in methods, the philosophy of science and ethics.

The course portfolio contains some core courses/mandatory elements unique to each specialisation, but with room for elective courses for tailoring the training to the research goals and interests of the student. The specialisations also vary with respect to the proportion of mandatory versus elective courses, cf. appendix 10.11. The composition of the courses for the student is decided by the student's supervisor / mentor together with the student and the plan is stated in the PhD contract (see below).

The course load must be equivalent to a minimum of 45 credits (ECTS). For the specialisations in Economics and Finance, the requirement for the training component is 60 ECTS. In addition, the students must also complete a course in pedagogy (the course gives no ECTS) prior to submission of their thesis.

If recommended by the supervisor/department, the PhD student may also enrol at PhD courses at other institutions. The PhD student must normally pass the training component within the second year of the programme.

The thesis:
The main part of the PhD programme is a supervised independent research project, the PhD thesis. The thesis must be an independent piece of scientific research that meets international standards with regard to ethical requirements, academic level and the methodology used in the field. The thesis shall contribute to developing new knowledge and maintain an academic standard that would justify publication as part of the research-based knowledge development in the field.

When entering the programme, a mentor or principal supervisor will be appointed to the student. If a mentor is appointed the first year, a principal supervisor will be formally appointed later in the programme when the student's research area has been decided. The supervisor is formally appointed by the Vice Rector for Research. The principal supervisor will provide research guidance and lead the supervision committee[20] for the student.

[20] All PhD students will have a supervision committee consisting of at least two members. Therefore, at least one co-supervisor is appointed. The requirements of the composition of the supervision committee are the following: At least one member of the committee must be an NHH employee. At least one member of the committee should be a person who is not employed by NHH in a full-time position. All the supervisors must hold a doctoral degree or equivalent qualification in the relevant field and be active researchers. At least one of the appointed supervisors should have previous experience of and/or be trained as a supervisor for PhD candidates.

PhD students are expected to actively take part in national and international research communities, and are encouraged to participate in international courses and seminars. PhD students are encouraged to have research stays abroad and the school also provides funding and other support to facilitate such stays.

The PhD degree is awarded on the basis of the approved completion of the training component, the approved academic thesis, and in addition an approved trial lecture on a prescribed topic and an approved public defence of the thesis (disputation). The evaluation committee is appointed by the Vice Rector for Research. The evaluation committee consists of at least three members, where the majority of the members are external to NHH and at least one should not hold his/her principal position at a Norwegian institution.

10.7 Appendix: General Information Regulations and PhD Contract

Several rules and regulations apply to the PhD programme at NHH, in addition the individual PhD contract is an important document regulating the PhD study for the individual PhD student:

- The Regulations for the Philosophiae doctor (PhD) degree at NHH and Supplementary provisions set out rules on admission to, studies on and completion of the PhD programme at NHH. The last revision of the regulations occurred 7 December 2017.

- The Regulations for Full-time Study Programmes at the Norwegian School of Economics (NHH) and Supplementary provisions to the Regulations for Full-time Study Programmes at the Norwegian School of Economics applies to the PhD programme regarding assessment during the training component of the PhD programme.

- The individual student's PhD contract regulates the parties' rights and obligations during the contract period, also including course plans and progression milestones where the students must pass a midway evaluation (proposal defence) normally held in the third or the fourth semester. The students are also obliged to submit an annual progress report each year. Material breaches of the PhD contract may result in enforced termination of the PhD programme before the contract period expires. The contract is also intended to ensure that the candidate regularly participates in an active research community and facilitate the completion of the PhD programme by the agreed time. The contract is signed by the PhD candidate, the supervisor(s), NHH and any external employer within the first three months after the PhD students start in the PhD programme. The PhD contract is subject to approval of the Vice Rector for Research.

10.8 Appendix: General Information on the Programme Management

The responsibility of the programme management is covered by several different levels:

NHH Board: The overall responsibility for the PhD programme rests with the NHH Board. Reports on an aggregate level for the PhD programme on the quality of studies, research and dissemination is included in NHH Annual Report which is to be approved by the Board, and sent to the Ministry of Education and Research. The Board receives a more detailed annual PhD report, while the detailed programme evaluation is presented the Board every five years.

Vice Rector for Research: This responsibility for the PhD programme has been delegated to the Vice Rector for Research. The Vice Rector for Research is also Dean of the PhD programme, and has the academic and administrative power of decision for the PhD programme and has the chief responsibility for the quality assurance in the programme.

Research Committee: The Vice Rector for Research chairs the Research Committee (FFU) which is the advisory committee for the Vice Rector for Research in matters pertaining to the PhD programme, including quality measures. The Research Committee shall contribute to ensuring that the programme is academically and educationally adapted so that it meets the current and future needs of research and society at large in the best possible way.

Department: Each department has a faculty member (PhD coordinator) who is part of the department's management team. The PhD coordinator is responsible for following up the PhD students at the department. Also, the PhD coordinator is responsible for the composition of the department's course portfolio and the academic content of the specialisation. This includes e.g., finding suitable academic supervisors with regard to the right formal competencies and experience; including the PhD student in an active research environment, and ensuring that progress milestones are reached and the PhD candidate complete on time.

PhD student: The individual PhD student is expected to report on his/her progress etc. to the Vice Rector for Research and the department every year, and to actively participate in any surveys distributed. The PhD students participate in the quality assurance work through their representatives on the Research Committee. There are two PhD students represented in the Research Committee.

Office of Research Administration: The Office of Research Administration is the administrative unit responsible for supporting the Vice Rector for Research in relation to the PhD programme in administrative procedures, including preparing and maintain the quality assurance system.

The Academic Appointment Committee: Decisions on faculty appointments (teaching/research), including PhD Scholars are made by the Academic Appointment Committee. The committee is chaired by the Vice Rector for Faculty Affairs. Among other thing, the committee shall ensure that faculty and PhD scholars have academic and teaching competence (educational theory and practice and didactics for Universities and University Colleges).

10.9 Appendix: General Information Recruitment and Admission Procedures

Admission is a quality assured process involving the Vice Rector for Research, the departments, the Office of Research Administration and the Office of Human Resources. The greater part of the PhD candidates holds Research Scholarships at NHH, while a few are externally financed. In the period 2016-2021, 20-30 new Research Scholars were enrolled in the programme each year, the exception being 2016 when only 11 were enrolled.

Funding is required for the entire study period. With funding from NHH, NHH is the employer, and funding will normally be given for four years. A four-year scholarship includes a commitment to work 25% as a teaching and/or research assistant. The annual salary for the PhD research scholar position is currently NOK 490 800 (equivalent to approximately EUR 49 410 or USD 57 050). Funding may also be arranged from other institutions, or by means of the Public or Industrial PhD scheme. In the latter case, a company/organization is the employer, and funding is partly covered by the company/organisation and partly from the Research Council of Norway. In all cases, the requirements of the PhD Study Programme are the same.

Vacant NHH PhD Research Scholar positions for the main admission are normally announced mid-November with deadline mid-January, with a subsequent start of the studies in mid-August. If applicants do not match the quality standards of NHH, scholarship positions are withheld, followed by a new recruitment process later in spring or autumn of the same year. The annual recruitment process is always followed by an analysis of marketing effectiveness and the distribution of applicants with respect to country of origin, gender, study background and the percentage of applicants form high-ranked schools, etc.

Admission Requirements

Requirements for admission is normally the Master of Science (MSc) or a comparable relevant degree, a minimum of B in Grade Point Average, and a Minimum of B on their master thesis. Some of the PhD specialisations may require documentation of an adequate level of academic and English language proficiency.

Marketing

Marketing involves internal and external marketing, details for the 2021 recruitment are found in Appendix 10.10.

- *Internal Marketing:* For NHH Master students, the PhD Programme is each year represented at the NHH Career Day, followed up by subsequent lunch information seminars. Both master and bachelor students are also informed about the PhD programme on different occasions. In addition, faculty members seek to identify promising students in the more advanced master courses, as well as informing their contacts in Norway and abroad. The students also are informed of the application deadline by posters, digital announcements and emails.
- External Marketing: To reach potential international applicants, the PhD Programme has been advertised on websites such as for example academics.com, academicpositions.eu, findaphd.com, and jobs.ac.uk. The positions are also advertised on LinkedIn, finn.no, nav.no, JobbNorge, Nhh.no and Euraxess.

Selection and Enrolment/Appointment Process

Many of the departments receive a high number of applicants. The first screening of the applicants is often a time-consuming process. NHH uses the cloud-based recruitment tool Jobbnorge in the recruitment. Efforts has been made to try to make this process more effective for the departments by introducing a set of screening questions all applicants must answer e.g. the duration of the master degree, if they wrote a thesis, title of thesis, which institution awarded their master's degree and scores on language proficiency tests. After the application deadline, the Office of Research Administration provides excel-reports of the screening questions from Jobbnorge to the departments.

The screening and selection process involves the Departments, the Office of Human Resources, the Office of Research Administration, the Vice Rector for Research, and the Academic Appointment Committee:

- Assessments by the admission committees at each of the departments, where candidates in general are assessed by their academic performance, their ability to write promising research proposals, and their match with the current research agenda and available supervisors. The assessments are made on the basis of the application, interviews, and references provided by the candidate.
- Assessment of the formal education of the recommended applicants is done by the Office of Research Administration, and enrolment has to be approved by the Vice Rector for Research.
- On the basis of the recommendation of the department, and the enrolment approval of the Vice Rector for Research, the Academic Appointment Committee makes decisions on the offer of appointment/enrolment, thus emphasizing the dual role of the PhD Research Scholar as both a student in the PhD programme, and an employee at one of NHH’s six academic departments.

10.10 Appendix: Admission Report PhD Programme 2021

The purpose of this report is to give an overview of the 2021 enrolment for the PhD programme. The report. Dated 28 May 2021, presents 2021 statistics and discussion of main admission, marketing channels, and enrolment.

1. The applicants (statistics of the 2021 main admission)

The main admission has deadline mid-January, and the statistics below refer to this admission[21]. The number of applications has increased in recent years. In 2021, five specialisations were recruiting through the main admission and received a total of 829 applications from 681 different applicants. The proportion of female applicants was 32.5%. As in previous years, the majority of applicants were foreign nationals (98.3%). Around 64% of the applicants on the departments' shortlists (i.e. their top-ranked applicants) hold a master's degree from "recognized" schools"[22]. In 2021 4.8% (2020, 1.9%) of the applicants were NHH master graduates.

Table 14 shows the number of applicants in the main admission per department. The percentages are relative to the total number of applicants, and the numbers in parentheses refer to 2020. For the department of FIN the numbers in parentheses refer to 2019.

Table 14 Overview of applicants for the main admission per department 2021

Department	Number of applicants	Female Applicants	Average age	Norwegian Citizens	With NHH Master's degree
FOR	248 (168)	29.4% n=73 (24.4%)	32.7 (31.9)	1.2% n=3 (1.5%, n=2)	4% n=10 (2.98%, n=5)
FIN	96 (92)	28.1% n=27 (23.9%)	33,4 (30.9)	3.1% n=3 (3.3% n=3)	10.4% n=10 (4.3% n=4)
RRR	54 (77)	33.3% n=18 (41.5%)	34.6 (32.6)	1.9% n=1 (3.9%, n=3)	7.4% n=4 (3.9%, n=3)
SAM	210 (253)	34.3% n=72 (30.4%)	31.1 (31.9)	2.4% n=5 (2.8%, n=7)	3.3% n=7 (0.4%, n=1)
SOL	220 (181)	35.9% n=79 (31.5%)	33.3 (33.0)	0.9% n=2 (4.4%, n=8)	4.1% n=9 (2.2%, n=4)
Total	828 (679*)	32.5% n=269 (30.4%, n=207)		1.7% n=14 (2.9%, n=20)	4.8% n=40 (1.9%, n=13)

*Number of applicants for FIN from 2019 are not included in the total number of applicants in 2020.

Efforts are continuously made to increase the number and proportion of female applicants. Table 15 highlights the proportion of female applicants during the last five years. The proportion has increased after a marked fall in 2017 and 2018, there was an increase this year compared to the last two previous years.

Table 15 The proportion of female applicants during 2017 - 2021

	2017	2018	2019*	2020	2021
Proportion of female applicants	25.5% (n=152)	27.3% (n=133)	30.5% (n=238)	30.4% (n=207)	32.5% (n=269)

* Proportion of female enrolled (not applicants) into the programme

1.1 The applicant survey

The applicant survey provides insight as to why the applicants have applied to the PhD programme at NHH and their academic background. The survey was sent out to all applicants, and the response rate was 25%. 44% of the applicants answered that they had knowledge of NHH before they started looking for opportunities to apply for PhD positions / PhD programmes and over 50% of the applicants stated that they had applied for other PhDs programmes in addition to NHH. The most common sources of information for finding information about PhD programmes and NHH were the

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[21] Occasionally, supplementary positions are separately advertised at other times of the year. This, however, applies to a small number of the PhD scholarships. Note also that the Department of Professional and Intercultural Communication announces their positions later in the spring semester and is not included in the number of applicants for the main admission. The Department of Finance only admits new PhD Research Scholars every second year (odd-numbered years).

[22] We have used Shanghai ARWU-Economics top 200 as our definition of recognized schools.

PhD website, jobbnorge, word of mouth, FindAPhD.com, school rankings, advice from fellow student or friends, PhD presentations at NHH etc.

Table 16 shows the applicants' main criteria for choosing which schools to apply to. Table 17 states their main reasons for applying a PhD scholarship at NHH.

Table 16 Main criteria for the applicant's choice of PhD programme

	Answers from candidates
1	Financial support from the school
2	School's available PhD specialisations
3	School's reputation for its research
4	Schools learning environment
5	International opportunities

Table 17 Main reasons for applying for a scholarship at NHH

	Answers from shortlisted candidates
1	Academic quality and reputation
2	Improve career possibilities
3	Scandinavian culture and welfare system
4	NHH specific offers of specialisations
5	Good facilities of the institution

Like before, we use the top 200 schools on the Shanghai ARWU-Economics ranking as the measure for master's from recognized schools. Of 172 respondents, 19% (33 respondents) state that they have a master's degree from a recognized institution. For an overview of which of the top 200 schools on the Shanghai list they have masters from, see Attachment 1.

1.2 The selection process and acceptance rates

The departments have in recent years increased their efforts of taking into consideration the availability and interests of supervisors when hiring new PhD students. Some departments invite faculty members seeking PhD students to announce their preferred topics of supervision prior to the recruitment process. A result is that most departments practice an early pairing of students and supervisors, which they believe has the benefit of more committed supervisors, and thus a closer follow-up and improved progress. Departments also report explicit efforts assessing the qualifications and merits of faculty members when appointing supervisors.

After a thorough selection process, the best candidates receive an offer. Table 18 shows the offers given, and the proportion of offers accepted for the specialisations participating in the main admission process. A total of 19 PhD students accepted offers in the main admission of 2021, starting their PhD studies in August 2021. Five individuals have declined offers in the main admission; SAM (four individuals) and SOL (one individual).

Table 18 Total number of applicants (main admission), number of offers given, and proportion accepting an offer

Year	Number specialisations	Number project positions*	Number of applicants	Offers given	Acceptance rate
2021	5	-	829	24	19 (79%)
2020	4	-	680	17	15 (88%)
2019	5	3	781	31	19 (61%)
2018	4	4	576	19**	15 (79%)
2017	-	-	579	29	22 (76%)

**Positions funded by externally funded project, such as by the Research Council of Norway*

**Offers to PhD Research Scholars for the specialisation of SOL is not included in the numbers from 2018. The data are not available.

2. Enrolment 2021 with start in August 2021

For the semester starting August 2021, 25 PhD students are planned to start. This includes the 19 PhD students from the main admission described above, and six additional PhD students who were admitted in 2020 with planned start in 2021. (In addition, FSK plans to hire one new PhD student with start in August 2021, which is not included in the tables below.) The 2021 enrolment shows a rather even gender balance of 52% male and 48% female students.

Table 19 provides a closer look at the gender balance of the new PhD agreements during the period 2016 - 2021, showing an extremely low proportion of new female students in 2018, and more satisfactory levels the past years.

Table 19 Overview of new PhD agreements and female proportion during 2016 – 2021

	2016	2017	2018	2019	2020	2021
New PhD agreements	11	30	21	27	22	25*
Female proportion (%)	38%	44%	10%	41%	55%	48%

**Number of admitted PhD students by 26.05.21 to submit PhD agreements by 15.10.21*

Of the 25 admitted PhD students starting in 2021, 24% were Norwegians, and 44% had a master's degree from NHH, see Table 20 below.

Table 20 Number of enrolled PhD students with master's degree from NHH

	2016	2017	2018	2019	2020	2021
NHH master	7	13	14	13	8	11
Total enrolled	14	27	22	27	22	25

Table 21 shows the new PhD students per department in 2021. Of the 25 admitted PhD students starting in 2021, 28% were Norwegians, and 44% had a master's degree from NHH.

Table 21 Overview of PhD students per department with start in August 2021

Department / Gender	Nationality	Master's Degree from
FIN		
Female (1996)	Belaruse	NHH
Female (1984)	Iran	NHH
Female (1991)	Iran	Gothenburg university
FOR		
Female (1995)	China	Johns Hopkins University
Male (1997)	India	Indian Institute of Technology, Kharagpur
Male (1995)	Norway	NHH / Bocconi University
Male (1990)	Columbia	Universidad EAFIT
Female (1992)	China	Uppsala University
Female (1995)	Norway	NHH
Female (1996)	Italy	University of Bologna
Male (1993)	Norway	NHH
FSK		
Female (1993)	Norway	UiB
SAM		
Male (1996)	France	Paris School of Economics / University of Paris-Saclay
Male (1997)	China	University of Zurich
Female (1996)	China	NHH
Female (1994)	Ecuador	NHH
Female (1995)	India	LSE
SOL		
Male (1985)	India	NHH
Male (1993)	Austria	NHH
Male (1996)	Norway	UiB
Male (1987)	Turkey	NHH / HEC Paris
Female (1985)	USA	LSE
Male (1972)	Norway	BI
RRR		
Female (1995)	India	LSE
Male (1995)	Norway	NHH

3. Marketing/promoting the PhD programme

Although the number of applicants for the PhD programme has been steadily increasing the past decade, there is still an ambition to increase the number of applicants from highly ranked schools. Given the generous funding scheme for PhD positions in Norway, as well as the high quality of faculty and research groups at NHH, the programme should be able to attract more highly qualified applicants.

The strategies of marketing have in recent years been adjusted to include more targeted marketing towards selected countries and schools. To reach potential international applicants, the PhD Programme has been advertised on external portals such as Academic positions, SSRN, Researchgate, Inomics, findaphd.com, and jobs.ac.uk. The positions are also advertised on LinkedIn, finn.no, nav.no, Jobbnorge, nhh.no, and Euraxess, in addition to targeted ads on Facebook. In addition to the general advertising of the PhD programme, the advertising is now, to a greater extent, tailored to the needs of each department. Also, each of the departments are allocated funding up to NOK 20 000 for externally directed marketing for their specialisation.

Measures aimed at NHH students

- Faculty is encouraged to spend a few minutes of the lectures to promote the PhD programme (conducted at some lectures)
- Represented at the NHH Career Day, followed up by lunch information seminar
- Announcement on Canvas
- The students are informed of the application deadline by ads on NHH.no
- K7 Bulletin (digital), see Attachment 2

Measures aimed at NHH students

- Vacant positions NHH
- PhD movie at nhh.no, facebook
- Top-banner digital ad on www.studvest.no, see Attachment 3
- Digital ad on www.underdusken.no, see Attachment 4
- Euraxess, nav.no, jobbnorge.no, LinkedIn, akadeus.com (HR)
- External portals (SSRN, Researchgate, FindAPhD, Jobs.ac.uk, Inomics, Academicpositions)
- Targeted ads on Facebook/Instagram aimed at master students at selected schools

Several efforts are made to improve the gender balance of the applicants. After an exceptionally low enrolment of females in 2018, the gender focus has been further intensified in 2019 and 2020. For example, the advertisements include the following text: "As the school aspires gender balance and diversity, female applicants will be given preference if applicants are otherwise equally qualified."

3.1 PhD programme websites

Analytics report from Siteimprove indicates an increase in traffic to the PhD programme websites compared to last year. During 15.11.20 – 15.01.21 the PhD websites had 32050 page views and 9906 unique visitors (28 435 page views and 6963 unique visitors in 2020). This year five specialisation announced PhD positions compared to four specialisations last year, so this might explain the increase in traffic. The traffic came mostly from countries and external referring domains as shown in Table 22 and Table 23 below.

Table 22 Ten top countries

	2021	2020	2019
1	Norway	Norway	Norway
2	India	USA	India
3	Iran	India	USA
4	USA	Iran	Bangladesh
5	United Kingdom	Pakistan	Pakistan
6	Pakistan	Germany	Iran
7	Turkey	United Kingdom	China
8	Germany	Ghana	United Kingdom
9	China	Nigeria	Germany
10	Sweden	China	Turkey

Table 23 Top ten External referring domains

	2021	2020	2019
1	JobbNorge.no (980)	JobbNorge.no (878)	m.facebook.com, mobil (1059)
2	Findaphd.com (762)	Findaphd.com (650)	JobbNorge.no (779)
3	m.facebook.com (432)	m.facebook.com, mobil (414)	Findaphd.com (346)
4	Academicpositions.com (129)	Akadeus.com (121)	Akadeus.com (202)
5	Researchgate.net (116)	www.facebook.com (88)	Academicpositions.com (76)
6	t.co (79)	Instagram.com (82)	Instagram.com (63)
7	Jobs.ac.uk (78)	Academicpositions.com (81)	Euraxess.ec.europa.eu (37)
8	l.facebook.com (74)	Dusken.no (66)	Fundyab.com (22)
9	Instagram.com (70)	Euraxess.ec.europa.eu(48)	mail.google.com (21)
10	Akadeus.com (68)	Studvest.no (40)	Utdanning.no (19)

3.2 Web portals

The advertising strategy from 2020 was continued in 2021 and seems to have worked well. The quality of the applicants is good, and several women applied and got a place in the program this year. The following portals were used;

- www.researchgate.net
- www.findaphd.com
- www.jobs.ac.uk
- www.academicpositions.no
- www.SSRN.com
- http://Inomics.com

3.3 Facebook ads

This year, the PhD programme had three general Facebook campaigns during the period 19 November 2020 to 14 January 2021. The PhD video was used in one of the campaigns. Table 24 shows further details. «Reach» is the number of individuals who have received the ad in their feed, "Exposure" is the number of times the ad is displayed. "CPM" is the cost per 1000 clicks (number of clicks is not included).

Table 24 Statistics Facebook ads for the PhD programme

Ads	Reach	Exposure	Cost (NOK)	CPM
2020 - ph.d. - Video	113 900	297 042	4 000	35,12
2020 - ph.d. - Marius	84 524	213 686	2 000	23,66
2020 - ph.d. - Rabia	83 824	226 093	2 000	23,66
2020 - ph.d. (Total)	**2 1448 518**	**736 821**	**8 000**	**53,87**

4. Assessment of the main admission and suggestions for changes

We have asked the departments and HR to provide feedback on the main admission process, we specifically asked for input/comments on the following:

- Comments on the application and hiring process
- The quality of the applicants
- The gender balance of applicants

The inputs are recounted below.

Process from application deadline to meeting in TU:

- Prior to the application deadline, a tentative time schedule covering the timeline from the application deadline to the deadline for case documents to the meeting(s) in TU. This is to ensure that all parties can plan the process in advance, in order to get everything done and have the case documents ready before the TU deadline. The feedback from involved parties is that this process has worked well.

Assessment of academic competence of applicants:
- The cooperation between HR, FAA and the departments has been good, and although the academic competence of some of the candidates are time consuming and difficult to assess, all shortlisted applicants were assessed before the deadline for the TU meeting(s).

Eligibility requirements:
- In June 2020, NOKUT adjusted its guidelines and practices for recognition of foreign higher education. The changes makes the recognition process more flexible and better suited for today's state of affairs in education; https://www.nokut.no/en/news/new-guidelines-for-recognition-of-foreign-higher-education/ . With the new guidelines there will be less focus on the number of credits, and more emphasis on what types of further studies you are qualified for in the country where you obtained your qualification.
- Furthermore, more types of foreign master's degrees (shorter master's degrees, one-and-a-half-year master's degrees, two-year master's degrees and integrated five-year master's degrees) are regarded as equal to the various Norwegian master's degrees. This means that more applicants will be able to get their degree recognized as equivalent to a Norwegian master's degree. Currently, the PhD programme at NHH normally requires the applicants to have completed a five year's master of science degree or comparable degree relevant for their specialisation. FFF should discuss if the eligibility requirements for the PhD programme should be adjusted to be in line with the new guidelines from NOKUT.

Quality of applicants:
- As usual the majority of the applicants fall in the category that they are not qualified. Many applicants are from schools that which are unfamiliar for which we do not have good indicators of quality. While 19% of respondents where from recognized schools (Shanghai top 200 – Economics), it is likely that the share for the total applicant group is considerably lower i.e. for those who did not respond to the survey.

Gender balance:
- The proportion of admitted female candidates was near 50%. The departments place high emphasis on the gender balance in the recruitment process. In addition, all announced positions includes the following information: "As the school aspires gender balance and diversity, female applicants will be given preference if applicants are otherwise equally qualified."

Information to applicants:
- Each year we update the information on the PhD websites. We still receive many inquiries regarding tests and whether they can be waived. We have adjusted the information on the website regarding information of proficiency tests (GMAT/GRE and IELTS/TOEFL) in order to reduce the number of inquiries about requirements for tests. However, we still receive a several inquiries about this matter.
- The applicants are asked to give NHH access to the results of the tests directly via the test centers before the deadline. In addition, we also asked the applicants to upload a copy of the test results in JobbNorge and provide their registration number/ID. This is helpful in order to easily verify the test results in the test center's database since the search function by name is poor. This year we received many inquiries from applicants if they could wait to give NHH access to their test scores till it was decided they were one of the selected candidates. For applicants applying for admission to several PhD programmes, the cost of sharing their results range from$20-28 per test. For applicants in some countries this is a big cost. Therefore, we should consider to only require that selected candidates give NHH access to their test results. If they provide us with a copy of the test result in JobbNorge, this might be sufficient in the process

when we select applicants. In this case, the selected candidates must be informed that they have to ask the test centers to give NHH access to their results without delay due to the time lag at the test centers.

- After the deadline the applicants are notified of the further timeline of the process and when to expect a final decision. General information on the process is also available on the PhD website. This has generated fewer inquiries to the departments, FAA and HR. FAA and the departments have requested that they are information provided to the applicants.

Marketing:

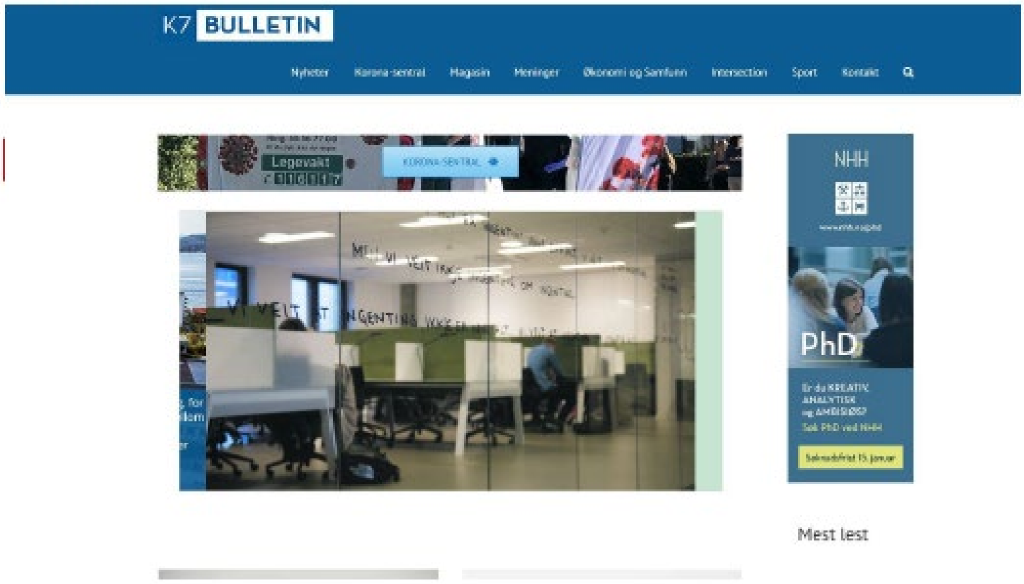
- Each year we make small adjustments based on the experience with the external portals we use to promote the PhD programme and the announced positions, and we have also continued the strategy of more targeted marketing for the specialisations. Nevertheless, it is difficult to find the best way to promote the programme to attract even more qualified applicants from recognized schools and specific countries (Nordic countries, specific countries in Europe and the UK).

Attachments

Attachment 1 Respondents with master's degree on the Shanghai list (top 200)

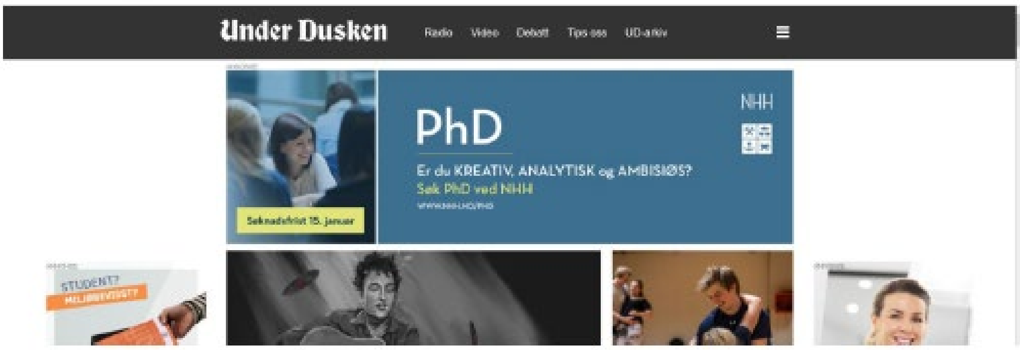
Respondents with master from ranked school	Number
NHH - Norwegian School of Economics	9
Indiana University Bloomington	2
Autonomous University of Barcelona	1
Bocconi University	1
Catholic University of Louvain	1
Copenhagen Business School	1
Ghent University	1
Harvard University	1
Lancaster University	1
London Business School	1
Monash University	1
Norwegian University of Science and Technology - NTNU	1
Pompeu Fabra University	1
Shanghai Jiao Tong University	1
The Australian National University	1
Toulouse School of Economics	1
University College London	1
University of Groningen	1
University of Nottingham	1
University of Sussex	1
University of Technology, Sydney	1
University of Wisconsin - Madison	1
University of Zurich	1
Western University	1
Total (33 of 172 respondents or 19%)	33

Attachment 2 K7 Bulletin (digital)



Attachment 3 Digital ad Studvest

Attachment 4 Digital ad Under Dusken



10.11 Appendix: PhD Courses 2021

Table 25 lists the PhD courses offered at NHH in 2021. The table includes the number of students completing the final exam/evaluation, however, the number of students following, and not completing the course, may be higher. The course titles of the table are linked to the corresponding course description. Further details on course descriptions are available at the PhD Courses website.

Table 25 List of PhD courses 2021

Course	Course title	ECTS	Semester	Students	Total ECTS
BEA514	Topics in Numerical Optimization	5	Spring	3	15
BSRS918	Socio-economic Inequality and Intergenerational Mobility	4/10	Spring	15	96
BSRS919	Corruption: Research, Regulation and Governance	4/10	Spring	10	58
ECS507	PhD Macroeconomics II	7.5	Spring	6	45
ECS509	PhD Econometrics II	7.5	Spring	7	52.5
ECS565	PhD Microeconomics II	7.5	Spring	4	30
ECS566	Exclusive Contracts and Digital Platforms	7.5	Spring	-	-
ECS569	The Theory of Institutions	7.5	Spring	14	105
FIN540	Empirical Corporate Finance II	4	Spring	5	20
MET504	Theory and Research Evaluation	5	Spring	10	50
MET512	Qualitative Methods: The Basics	7.5	Spring	17	127.5
MET522	Multivariate Data Analysis	7.5	Spring	10	75
MET524	Research Ethics for the Social Sciences	2.5	Spring	13	32.5
MET528	Scientific Methods	7.5	Spring	12	90
ORG521	Entrepreneurship and Strategy	5	Spring	15	75
REG522	Economic Analysis of Corporate Misconduct	5	Spring	8	40
REG523	Behavioural Auditing Research	5	Spring	4	20
BEA511	Topics in Dynamic Modeling and Optimal Controls	5	Autumn	6	30
BEA512	Modeling Decision Problems under Uncertainty	5	Autumn	7	35
BEA513	Topics in Probability Theory and Stochastic Processes	5	Autumn	4	20
BEA521	Tax Policy and Multinational Firms	5	Autumn	-	-
BEA524	Taxes and Labor Mobility	5	Autumn	2	10
BEA525	Financial Engineering in Energy Markets using Real Options	5	Autumn	2	10
ECS504	PhD Microeconomics I	7.5	Autumn	12	90
ECS506	PhD Macroeconomics I	7.5	Autumn	6	45
ECS508	PhD Econometrics I	7.5	Autumn	8	60
ECS530	Analysing Spatial Data	7.5	Autumn	3	22.5
ECS566	Exclusive Contracts and Digital Platforms	7.5	Autumn	7	52.5
ECS568	Economic Theory and Experimental Economics: Confronting Theory with Experimental Data and Vice Versa (Cancelled)	7.5	Autumn	-	-
ECS570	Empirical IO: Dynamic Structural Models	7.5	Autumn	5	37.5
FIN501A	Asset Pricing I	5	Autumn	6	30
FIN501B	Asset Pricing I	5	Autumn	4	20
FIN504A	Corporate Finance I	7.5	Autumn	5	37.5
FIN504B	Corporate Finance I	2.5	Autumn	3	7.5
FIN538	Financial Econometrics	7.5	Autumn	5	37.5
FIN547	Corporate Finance and Industrial Organization	5	Autumn	5	25
MET501A	Research Designs and Methodological Choices	5	Autumn	6	30
MET501B	Research Designs and Methodological Choices: Research Proposal	2.5	Autumn	6	15

MET501C	Research Designs and Methodological Choices: Research Proposal (Accounting track)	2.5	Autumn	3	7.5
MET513	Academic Writing in a Research Setting	2.5	Autumn	6	15
MET529	Applied Analytics in Strategy and Management	2.5	Autumn	16	40
ORG520	Foundations and Frontiers of Management	7.5	Autumn	7	35
REG511	Cost and Performance Measurement	7.5	Autumn	3	22.5

Each specialisation has determined a set of PhD courses that are mandatory for all students within the specialisation. The set of mandatory courses is approved by the Vice Rector for Research. For the remaining courses of each student, these are determined jointly by the supervisor and PhD student, tailored to the needs of the student's research. The choice of courses is registered in the PhD Contract of the student and approved by the department. Table 26 lists the mandatory PhD courses of each specialisation.

Table 26 Mandatory PhD courses of each specialisation (at time of background report)

Specialisation	Mandatory Courses
Accounting, Auditing and Law	MET501A Research Designs and Methodological Choices MET501C Research Design and Methodological Choices: Research Proposal MET524 Research Ethics for the Social Sciences MET527 Scientific Methods
Business and Management Science	Scientific Methods (or similar course) Microeconomics (or similar course) Methods (one of the courses BEA511, BEA512, BEA513, BEA514, ECS508 or ECS509)
Economics	ECS504 PhD Microeconomics I ECS506 PhD Macroeconomics I ECS508 PhD Econometrics I ECS565 PhD Microeconomics II ECS507 PhD Macroeconomics II ECS509 PhD Econometrics II MET528 Scientific Methods
Finance	FIN501A Asset Pricing I FIN501B Asset Pricing I FIN504A Corporate Finance I FIN504B Corporate Finance I FIN538 Financial Econometrics FIN521 Topics in Empirical Corporate Finance FIN539A Research Seminar in Finance FIN545A Asset Pricing II FIN545B Asset Pricing II FIN543 Scientific Methods in Finance
Professional and Intercultural Communication	MET513 Academic Writing MET524 Research Ethics for the Social Sciences MET504 Theory and Research Evaluations (or similar course)
Strategy and Management	MET501A Research Design and Methodological Choices MET501B Research Design and Methodological Choices MET513 Academic Writing MET524 Research Ethics for the Social Sciences MET529 Applied Analytics in Strategy and Management MET504 Theory and Research Evaluations MET512 Qualitative Methods MET522 Multivariate Data Analysis ORG521 Entrepreneurships and Strategy ORG520 Foundations and Frontiers of Management (PhD students in marketing are not required to complete this course)

10.12 Appendix: Public Defences 2016-2021

Table 27 shows an overview of all public defences 2016-2021[23].

Table 27 List of public defences the last six years

Year	Author and Title	Specialisation
2021	Sundkvist, Charlotte H.: Essays on Earnings Quality in Private Firms	RRR
	Meissner, Stefan: Essays on Information and Fairness	SAM
	Berge, Joel W.: Essays on Reporting and Information Acquisition Under Conflict of Interest	RRR
	Ay, Fehime C.: Essays on Information Preferences and Morality	SAM
	Alangi, Somayeh R.: Challenges Arising from the European Sequential Electricity Market Design: Market Power and Intraday Market Issues	FOR
	Aursland, Thor Andreas: Essays on Business Cycles and Macroeconomic Policy	SAM
	Møller, Bjarne: Valuation of Inventory of Live Biological Assets: Measurement, Value Relevance and Usefulness to Equity Investors	RRR
	Lundeby, Stig Roar H.: Essays on Asset Pricing	FIN
	Osmundsen, Karen S.: Gather your employees: Digital Transformation in Incumbent firms. Insights from the Norwegian Grid Sector	SOL
	Skaar, Silje Rydland: First-Line Managers as Change Agents in the Implementation of Planned Change	SOL
	Evensen, Charlotte Bjørnhaug: Three chapters in industrial organization	SAM
	Maggi, Damiano: Essays on Empirical Corporate Finance	FIN
	Andvik, Christian: Budgeting, And Beyond: Essays On Contemporary Management Control	RRR
	Nishchal, Shrey: The Economics of Collusion Between Public Officials and Firms	RRR
	Wentzel, Mirjam L.: Three Economic Essays on Victimization and Social Policies from Childhood to Retirement	SAM
	Ørpetveit, Andreas: Essays on Actively Managed Equity Mutual Funds	FOR
	Syrstad, Olav: Essays in international finance	Dr.Philos
2020	Abrahamsen, Svein: Accounting quality and the macroeconomic environment	RRR
	Ghanbari, Negar: Essays on Debt Financing	FIN
	Mellberg, Johan: Essays on Empirical Corporate Finance	FIN
	Rapushi, Loreta: Essays on Empirical Corporate Finance	FIN
	Assmann, Lisa: Forecasting, Efficiency and Speed in Maritime Shipping	FOR
	Osicka, Ondrej: Topics in Cooperative Game Theory and Logistics	FOR
	Toumasatos, Evangelos: New Thesis on Fisheries Management	FOR
	Kjellevold, Kyrre: The Reliability of Accounting Estimates	RRR
	Sundkvist, Charlotte Haugland: Essays on Earnings Quality in Private Firms	RRR
	Halvorsen, Sandra: Household Decision-Making and Women's Labor Supply in Ethiopia	SAM
	Næss, Ole-Andreas: Essays in Political Economy	SAM
	Wyndham, Timothy: Essays on Industrial Organisation	SAM
	Issahaka, Abdallah Wumpini: How Knowledge Workers Should Be Led	SOL
	Pandey, Sujit: Human Capital and New Firm Performance	SOL
2019	Danilova, Kjersti B.: Leading Change Across the Organization	SOL
	Frii, Peter: Goodwill Accounting Choices under Different Levels of Discretion	RRR
	Nguyen-Ones, Mai: Essays on Retail Prices	FOR
	Zhang, Xiaoyu: Essays on Empirical Corporate Finance	FIN
	Haaland, Ingar K.: Essays on Beliefs and Political Behavior	SAM
	Buverud, Heidi: ERP system implementation: How top managers' involvement in a change project matters	SOL
	Le, Nhat Q.: Explaining Communication Effects on Donation Behavior: The Roles of Contractual Relations and Social Information	SOL

[23] Some of the dissertations are available at while https://openaccess.nhh.no/nhh. See also a short review of the public defences at https://www.nhh.no/en/nhh-bulletin/article-archive/?filter=phd+defense

2019 cont.	Hem, Alexander F.: Beyond Uniqueness: Developing and Testing a New Typology of Brand Benefit Differentiation	SOL
	Qiu, Xinlu: Knowledge Transfer across Boundaries: Studies on the role of indviduals regarding knowledge transfer and innovation	SOL
	Bruno, Giovanni: Essays on Optionality and Risk	FIN
	Falch, Ranveig: Essays on Inequality Acceptance	SAM
	Xu, Xiaogeng: Decision making on behalf of others	SAM
	Rusina, Aija: Essays on multinational firm behaviour: Profit shifting, secrecy jurisdictions and stock value?	FOR
	Helle, Grete: Formal Controls and Intelligent Accountability	RRR
	Huse, Håvard: Predicting Credit Card Delinquency: A Fundamental Model of Cardholder Financial Behavior	SOL
	Ni, Yuanming: Essays on fishery management	FOR
	Risa, Erling: Essays on Intergenerational Mobility	SAM
2018	Mirhedayatian, Seyed M.: Contribution to rich vehicle routing problems	FOR
	Gholami, Reza A.: Essays on Equilibria in Non-autonomous Bilevel Stochastic Games	FOR
	Dalla-Zuanna, Antonio: Essays in Empirical Labor Economics	SAM
	Tvedt; Erik H.: Essays on Dynamic Models in Corporate Finance	FIN
	Kyritsis, Evangelos: Energy Markets in Transition: Renewables, Bounds and Uncertainty: An Econometric Approach	FOR
	Rydland, Monica: Middle Managers' Role as Change Agents - Variations in Approaches and their Contributions to the Progress of Change	SOL
	Schøyen, Øivind: Legitimacy under Dual Moralities	SAM
	Sjursen, Ingrid H.: Essays on Behavioral Development Economics	SAM
	Picariello, Luca: Essays on Talent Discovery and Allocation	SAM
	Ugurlu, Serhat: Essays in Economic Measurement and Consumer Behavior	SAM
	Verma, Varun: Essays in Empirical Corporate Finance	FIN
	Gu, Yewen: Maritime Emission Regulations and Operations Research in Shipping	FOR
	Sendstad, Lars H.: Essays on Investments in Emerging Technologies: A Real Options Approach	FOR
	Cai, Hong: Essays on the European Electricity Markets	FOR
	Berg, Oddmund: Empirical Essays on the Dynamics of Consumption and Savings	SAM
	Hegrenæs, Claudia F.: Translation Competence Development and the Distribution of Cognitive Effort: An Explorative Study of Student Translation Behavior	FSK
	Vit, Procházka: Uncertainty modeling and spatial positioning in tramp shipping	FOR
	Ringdal, Charlotte: Essays on Women´s bargaining Power and Household decision-making	SAM
	Mydland, Ørjan: Essays on efficiency and economies of scope and scale in electricity networks	FOR
2017	Atreya, Nikhil: Banks: Liability Value and Optimal Capital Structure Under Alternative Asset Specifications	FIN
	Truong, Natalie: "When my relationship partner fails me...". The role of consumer-product relationship in responses to functional failures	SOL
	Hansen, Ole-Petter M.: Essays in Empirical Economics	SAM
	Garcia, Pedro P.: Description and representation in language resources of Spanish and English specialized collocations from Free Trade Agreements	FSK
	Tang, Yun: Essays on Empirical Corporate Finance	FIN
	Nesse, Synnøve: When Leadership Matters More Than Leaders: Developing a Processual Perspective on Leadership during Organizational Crises	SOL
	Sjåstad, Hallgeir: The psychology of prospection. Experimental studies on the nature of future-oriented thinking	SOL
	Persson, Kristina M.: Essays on behavioural change	SAM
	Giuliana, Raffaele: Three Essays in Empirical Finance	FIN
	Yan, Shiyu: Automobile in Transition: An Economic and Environmental Analysis of Policies for Reducing CO2 Emissions from Transport	FOR
	Kinserdal, Hilde: From "reliability" to "faithful representation"- more than a change of wordings?	RRR
2016	Solem, Birgit A. A.: The process of customer brand engagement in interactive contexts: Prerequisites, conceptual foundations, antecedents, and outcomes	SOL

	Thorsen, Helge S.: Essays on production of knowledge capital	SAM
	Wenstøp, Søren: On the nature and sources of normativity: Normativity as grounded in affective human nature	SOL
	Liu, Chunbo: Essays on Debt Covenants and Creditor Control	FIN
	Bakke, Julia T.: Essays on Multinational Firms and Profit-shifting	SAM
	Meidell, Anita: The Institutionalization of Enterprise Risk Management. The Case of a Large, Global, Oil and Gas Company	RRR
	Meidell, Jan E.: Occupational structure in England and Wales during the industrial revolution	SAM
	Stubberud, Hans A.: Business Incubators and Entrepreneurial Performance: The Influence of Network Value and Absorptive Capacity	SOL
	Wellmeyer, Patricia: Auditing in the Post Sox Environment: A Portfolio of Studies Examining Elements of the Assurance Gathering Process and the Impact of these on the Current and Future States of Audit Quality and Efficiency	RRR
	Sund, Berit: Norwegian Leadership: A Culturally Congruent Approach	SOL
	Golyagina, Alena: Management Accounting Professionalization: The Case of Russia	RRR
	Valuckas, Danielius: The Rise and Fall of Budget Initiatives	RRR
	Ulsaker, Simen A.: On vertical restraints: Essays in Industrial Organization	SAM
	Ly, Annelise: International Internal Communication in the Workplace: A Transdisciplinary Approach	FSK
	Fest, Sebastian: Choice and Attitudes towards Inequality	SAM
	Nordmo, Mads: "We care, and we mean it": Psychological mechanisms influencing perceptions of sincerity in CSR communication	SOL
	Kværner, Jens S.: Essays on Saving and Investment Choices	FIN
	Røsok, Kjell Ove: A Critical Assessment of Convergence with the IASB's Accounting Constructs	RRR
	Goncharenko, Galina: Essays on Financial Accountability of Human Rights Organizations	RRR
	Sandal, Hildegunn L.: The (Re) Production of Conventional Management Thinking and the Role of Research Practice: A Discourse Analysis	RRR
	Kurtmollaiev, Seidali: Service, Innovation, and Dynamic Capabilities: From Conceptualization to Explanation	SOL

Specialisation Code (derived from the Norwegian name): FIN= Finance, FOR= Business and Management Science, FSK= Professional and Intercultural Communication, RRR= ccounting, Auditing and Law, SAM= Economics, SOL=Strategy and Management.

10.13 Appendix: General Information Procedures of Progress Follow-Up

The school emphasizes close follow-up of PhD students to ensure progress as well as the well-being of the students. Several measures are in place:

- **PhD contract:** All PhD students must submit an individual PhD contract within the first three months after they start in the programme. The contract states clear milestones, and the obligations and rights of the student as well as the obligations of the supervisor. Breaches of the progress requirements entail a close follow-up to get back on track, however material breaches of the contract and progress requirements may result in enforced termination of the PhD programme before the contract period expires.

- **Follow-Up of Milestones:**
  - *Milestone – Completion of the training component:* Students are required to complete the training component within the first two years of the programme (by the fourth semester). While previously the training component was approved upon submission of the thesis, the Office of Research Administration now assesses the training component in the fifth semester, and the PhD students are notified whether the training component is completed or not. The PhD student and the department are also notified when the PhD student has used an exam attempt without passing. Quick notifications from the Office of Research Administration to the department about students with insufficient grades, enables the departments to keep a closer track and suggest action when needed.
  - *Milestone – Midway Evaluation - Paper/Proposal Defences:* All PhD students must pass a midway evaluation (proposal defence, paper defence), normally by the fourth semester. The midway evaluation is a main milestone, both with respect to a quality assurance for further studies, and as an exit point for students failing to meet the necessary requirements. Revised guidelines for the midway evaluation were approved by the Vice Rector for Research 21.06.21. The paper is presented and evaluated by a committee or a person appointed by the department. The paper has to be found to be of acceptable quality. The conclusion on the midway evaluation may be either "Pass", "Revise and resubmit" or "Fail". In the case of "Revise and resubmit", the PhD student is given up to three months to revise the research proposal/paper. The midway evaluation is a main milestone, both with respect to a quality assurance for further studies, and as an exit point for students failing to meet the necessary requirements.
  - *Further Milestones:* The departments are free to determine additional individual milestones, e.g., some departments have milestones related to the thesis work.

- **Annual Progress Reporting:** Students and supervisors are both required to submit separate annual progress reports each year by 1 October through an electronic reporting system. In 2018 a new progress report system was in place, allowing for a more efficient reporting. The new system emphasizes better monitoring progress by including up-to date data about courses the students have passed, updated contract period where sick-leaves and permission are included more effectively reporting, and improve the reports for follow-up. Moreover, the supervisor has access to what the reports of their PhD student(s), and the department can access the report from both the PhD student and the supervisor. As the Office of Research Administration has access to all reports, this enables sending reminders, as well as preparing material for the annual dialogue meetings, see below. Note that the system clearly includes information about how the reported information is used and who handles it, and the PhD students are informed to not submit special or sensitive circumstances they want to disclose in the progress report, but rather contact the

Office of Research Administration or the PhD coordinator/Head of Department directly. The Office of Research Administration together with the Vice Rector for Research evaluates the information from the student, main supervisor and the department and prepare overviews to be discussed with the departments.

- **Annual Dialogue Meetings:** The Vice Rector for Research, the Office of Research Administration and the Office of Human Resources hold dialogue meetings with each department yearly. At these meetings, each student's progress is assessed, and individual measures are implemented as needed. There is a strong focus on early detection of delays in progression and to quickly provide assistance to these students to get them back on track.

- **Guidelines for Following Up:** In 2020 the Section for Doctoral Education and the Office of Human Resources cooperated to prepare guidelines for how Departments, Supervisor Committees, HR, and the Section for Doctoral Education should deal with situations where the PhD student face challenges in their PhD education. Such situations may, for example be issues related to lack of progress, as well as serious instances of cheating or misconduct. The initial focus is always on how to resolve the problems and help the student back on track. However, the guideline also addresses in detail how to deal with situations that may lead to voluntary or forced termination of the PhD education and the employment contract.

While the above describes formal milestones and follow-up, the continuous follow-up of students within the departments is equally important. In addition to the follow-up by the supervisory committees, examples of further department follow-ups are; - individual follow-up by the department's PhD coordinator with students as well with the supervisors; - group meetings with the PhD coordinator and the PhD students on specific topics; - regimes of frequent reporting by the supervisor and the student in situations of severe lack of research performance or progress.

10.14 Appendix: Statistics on Progression

The main official measure of throughput is the proportion of PhD students that complete the programme within six years[24,25]. Since 2017, this proportion has been well above 70%, all years above the average rate of the sector from 2017-2020. While the proportion in 2020 exceeded 81%, the proportion has decreased to 55% in 2021. Note that the proportion of candidates that complete the programme within six years are based on the results from one cohort, the decrease can be explained by several of the PhD students in that particular cohort that have had legally justified leave of absence[26]. Details are shown in Table 28.

Table 28 Proportion of PhD candidates that complete the programme within six years

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
NHH	42.9%	61.9%	27.8%	57.9%	46.2%	61.5%	77.3%	76.2%	72.2%	81.8%	55%
Sector	66.3%	65.8%	64.0%	65.5%	66.3%	67.9%	66.1%	68.3%	66.3%	70.2%	-

We will also briefly account for the remaining group of students; students who have not completed within six years, and the students admitted to the programme less than six years ago. Due to leaves of absence and extended study periods, the full picture of completion for each student is not clear until years later. Table 29 provides a snapshot (per 31 January 2022) of the current status for the class of each year (i.e., the students enrolled during the specified year)[27]. The categories are as follows:

a) Active: For recent classes, most students are still active as students, in other words, the active students are defined as the students that still have the study right;
b) Completed: For older classes, most students have completed their PhD degrees and successfully graduated;
c) Termination of Contract: Some have terminated their research scholar contract within the contract period, thus also early terminating their six-year study right;
d) Expired Study Right: Some have completed their four-year research scholar position, and their six-year study-right has expired without completion of the degree. While this group has lost their right to submit a dissertation, they may, however, later apply for permission to submit.

Note that the classes of 2010-2017 are beyond the first four-year period, and the classes of 2010-2015 are beyond the six-year period. Table 29a-f provide details per specialisation.

Table 29 Current status PhD students by admission year (Snap shot per 31 January 2022)

Year of Admittance:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Admitted students*	13	23	22	18	21	20	14	26	22	27	22	25
a) Active			1		2	7	5	19	21	26	21	24
b) Completed	10	17	18	17	18	11	6	7				
c) Termination of contract	3	2	2			1	3		1	1	1	1
d) Expired study right		4	1	1	1	1						

**Admitted students: Students who quit shortly after start (no courses completed, or not started at all) are omitted (one student in 2013, one in 2019, two in 2020 and two in 2021).*

[24]This is the official measure registered in the DBH-database. The measure is defined on the population of students who started six years earlier. The proportion calculated is the number of students who successfully graduated within six years from start, divided by the number of the total population. There are no deductions due to leaves of absence.

[25]NHH has previously reported the proportion of students who have successfully graduated within the stipulated time of four years. These calculations require an in-depth information of the leaves of absence of all students. Incomplete information in this respect has proven to be a problem with the quality of the measure. It has thus not been calculated for 2020.

[26] The proportion of PhD students completing the programme within six years in 2021 was 55%. The reason for this is that a small number students in 2021 have had long legally justified absences of leave. Due to small number of classes recruited each year, this has a large impact.

[27] As registration procedures have change in the period, the table excludes (the low number) PhD Contracts that have been withdrawn in the early stage.

*Table 29a Specialisation Finance: Current status PhD students by admission year**

Year of Admittance:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Admitted students												
a) Active						1		5		4		3
b) Completed	1	1	2	3	4	1		1				
c) Termination of contract		1										1
d) Expired study right												

** Note that the Department of Finance was established in 2013. Students admitted to the program prior to 2013 were transferred to the Department of Finance from the Department of Business Management. The table shows students graduating at the Department of Finance from 2013 onwards*

*Table 29b Specialisation Business and Management Finance: Current status PhD students by admission year**

Year of Admittance:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Admitted students	1	2	4	4	5	6	3	5	7	5	8	8
a) Active						2		4	6	5	6	8
b) Completed	1	2	4	3	5	4	2	1				
c) Termination of contract							1		1			
d) Expired study right												

** Students transferred to the Department of Finance in 2013 are omitted from the table.*

Table 29c Specialisation Professional and Intercultural Communication: Current status PhD students by admission year

Year of Admittance:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Admitted students		3	1					2		2		1
a) Active								2		2		1
b) Completed		2	1									
c) Termination of contract												
d) Expired study right		1										

Table 29d Specialisation Accounting, Auditing and Law: Current status PhD students by admission year

Year of Admittance:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Admitted students	2	3	6	3	1	1	2	4	5	3	3	1
a) Active								2	5	3	2	1
b) Completed	2	3	5	3		1	2	2				
c) Termination of contract			1								1	
d) Expired study right					1							

Table 29e Specialisation Economics: Current status PhD students by admission year

Year of Admittance:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Admitted students	5	5	4	4	6	5	4	4	5	6	6	6
a) Active						2	2	2	5	5	6	5
b) Completed	3	4	4	4	6	3	2	2				
c) Termination of contract	2	1								1		
d) Expired study right												

Table 29f Specialisation Strategy and Management: Current status PhD students by admission year

Year of Admittance:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Admitted students	4	8	5	5	5	6	5	5	5	7	7	6
a) Active			1		2	2	3	4	5	7	7	6
b) Completed	3	5	2	4	3	2		1				
c) Termination of contract	1		1			1	2					
d) Expired study right		3	1	1		1						

10.15 Appendix: Statistics on Placement

The majority of our PhD graduates continue on an academic career, but an increasing number take on leading positions in management, consultancy or in larger organisations.

During 2016-2021, 68% of the PhD graduates continued their careers in academic institutions. Table 30 shows the details for each year, including the number of PhD defences.

Table 30 Proportion of each year's graduates with first job in academic or other sectors

	2016	2017	2018	2019	2020	2021	2016-2021
Number of PhD defences per year	26	11	19	17	13	16	102
First job in academic research institutions	73%	64%	74%	76%	54%	56%	68%
First job in other sectors	27%	36%	21%	24%	38%	44%	30%
First job unknown	0%	0%	5%	0%	8%	0%	2%

Table 31 shows the number of placements at NHH/SNF and other highly recognized schools for 2016-2021, while Table 32 presents aggregate numbers per specialisation for 2016-2021.

Table 31 Number of Placements at NHH/SNF and other highly recognized schools

	2016	2017	2018	2019	2020	2021	2016-2021
Number defences	26	11	19	17	13	16	102
Number of first jobs in academic institutions	19	7	14	13	7	9	69
Placement NHH/SNF	6	3	5	4	3	3	24
Placement highly recognized schools	4	1	1	3	2	2	13

Table 32 Placement at highly recognized schools (excluding NHH/SNF), per specialisation 2016-2021

	Finance	Business and Management Science	Professional and Intercultural Communication	Accounting, Auditing and Law	Economics	Strategy and Management
Number placements highly recognized school 2016-2021	5	0	0	3	1	4

The greater part, 70%, of the graduates 2016-2021, obtained their first job in Norway, while 28% started their careers abroad, as shown in Table 33. Further details as to which sector in Norway and abroad is provided in Table 34.

Table 33 Proportion of each year's graduates with first job in Norway

	2016	2017	2018	2019	2020	2021	2016-2021
First job in Norway	65%	64%	63%	76%	54%	94%	70%
First job outside Norway	35%	36%	32%	24%	38%	6%	28%
First job unknown	0%	0%	5%	0%	8%	0%	2%

Table 34 Proportion of each year's graduates with first job per sector and country

	2016	2017	2018	2019	2020	2021	2016-2021
First job in academic research institutions in Norway	46%	36%	47%	53%	39%	56%	47%
First job in academic research institutions abroad	27%	27%	26%	24%	15%	0%	23%
First job in other sectors in Norway	19%	27%	16%	23%	15%	38%	20%
First job in other sectors abroad	8%	9%	5%	0%	23%	6%	8%
First job unknown	0%	0%	5%	0%	8%	0%	2%

The PhD programme at NHH enjoys a highly international PhD student body, where a considerably large part of non-Norwegian graduates continues to work in Norway: 92% of the graduates with a Norwegian citizenship, and 50% of the graduates of other nationalities, obtain their first job in Norway. Table 35 shows the proportion of graduates with Norwegian versus other citizenships, while Table 36 shows the proportion of each group that start their first job in Norway.

Table 35 Proportion of graduates per nationality group (Norwegian/Non-Norwegian)

	2016	2017	2018	2019	2020	2021	2016-2021
Proportion of graduates with Norwegian citizenships	50%	36%	42%	53%	31%	62.5%	47%
Proportion of graduates with other citizenships	50%	64%	58%	47%	69%	37.5%	53%

Table 36 Proportion of Norwegians and Non-Norwegians with first job in Norway

	2016	2017	2018	2019	2020	2021	2016-2021
Norwegians with first job in Norway	85%	100%	75%	100%	100%	100%	92%
Non-Norwegians with first job in Norway	46%	43%	55%	50%	33%	83%	50%

10.16 Appendix: Learning Outcomes and Assurance of Learning

The work on learning outcomes and assurance of learning is an important part of the quality assurance of the PhD programme. The overall AoL work is led by the Vice Rector for Academic Affairs, who is also in charge of the NHH AoL Committee. The PhD AoL work is regularly discussed in the Research Committee. In the ongoing AACSB accreditation process, NHH has submitted reports, in which the AoL work of the PhD programme has been included. The AACSB Committee will visit NHH in April as part of the accreditation process. The Vice Rector for Research who is also the Dean of the PhD programme will meet with the committee when they visit NHH.

This appendix describes the learning outcomes for the PhD programme and provides an overview of the Assurance of Learning (AoL) work the last five years. The appendix consists of three parts, first a section that describes the learning outcomes. The second section presents the AoL work for 2017-2019, and includes an assessment of the learning outcome descriptions at the programme level and how the study plan meets these. The third section presents the AoL-work for 2020-2022.

1. Description of Programme Learning Outcomes

The learning outcomes for the PhD programme at NHH are based on, and in line with, the Norwegian Qualification Framework. They were revised and approved by the Vice Rector for Research (after discussion in the Research Committee) in December 2016. Table 37 displays the eight learning outcomes defined for the PhD programme.

Table 37 PhD Programme Learning Outcomes

Knowledge	LO 1	The candidate is in the forefront of knowledge within his/her academic field, and can challenge established knowledge and practice in the field
	LO 2	The candidate masters the field's philosophy of science and methods
	LO 3	The candidate can evaluate the expediency and application of different methods and processes in research
Skills	LO 4	The candidate can formulate and analyse problems
	LO 5	The candidate can plan and carry out research in accordance with international standards
General Competence	LO 6	The candidate can identify relevant ethical issues and carry out his/her research with integrity
	LO 7	The candidate can present and discuss own research in relevant academic forums
	LO 8	The candidate can lecture in his/her own academic field at the university level

2. Overview AoL work 2017-2019

The eight learning outcomes shown in Table 37 were adopted as the learning goals for the PhD programme and used as the basis for a pilot or first version of our AoL system.

Several steps were initiated: a) assessment of the learning outcome descriptions at the programme level and how the study plan meets these (i.e., a curricula mapping), b) curricula mapping at the course level, c) Identification of assessment instrument and measurement point, and d) Collection of measurements and discussion of results.

a) Curricula Mapping Learning Goals at Programme Level January 2017

This section presents an assessment of the learning outcome (learning goals) descriptions at programme level and how the study plan meets these.

To assure that the curricula support all of the learning outcomes for each student, a mapping of the different elements in the programme was done in January 2017. The curricula include elements such as the training component (courses), presentations, supervision of thesis work, etc. The mapping below in Table 38 shows elements where all of the students receive training/support (T), as well as the different measuring points where the learning outcomes can be assessed (A). The mapping indicates that the students receive support for all of the learning outcomes at the programme level.

Table 38 Matrix of curricular mapping Programme Level January 2017

Learning Goals		PhD Courses	Thesis work, supervision	Oral presentations	Proposal Defence	Thesis, PhD defence	Trial Lecture
Knowledge	LO1		T			A	
	LO2	T				A	
	LO3	T	T		A	A	
Skills	LO4	T	T		A	A	
	LO5	T	T		A	A	
General competence	LO6	T	T			A	
	LO7	T		T	T/A		
	LO8	T					A

Students receive most of their training within the taught elements in the programme (courses) and through work on the doctoral thesis under supervision.

All students have a supervisor committee to discuss issues related to their research problem formulation, methods, etc. The students receive feedback and have discussions with the supervisors on a regular basis. The process is an important part of the students' training to produce a scientific thesis of a high academic standard.

The students are required to present their research work at least once a year in either the department's seminar series or at national/international seminars or conferences. Together with the proposal defence and presentations of scientific work in some courses, this gives the students opportunities to present and discuss own research in relevant academic forums.

The proposal defence (midterm evaluation) is normally held in the third or fourth semester and is mandatory for all PhD students at NHH. The main purpose of the proposal defence is to ensure that the students show expected progress in their research work and abilities in accordance with their PhD contract, but also several of the programme learning outcomes. The PhD students are assessed by senior faculty and receive feedback on their research work (mainly LO3-LO5).

In addition to the curricula mapping, a mapping was done for the learning outcomes defined in the PhD course descriptions to ensure they are in alignment with the defined learning outcomes at the programme level. Prior to the mapping, the course descriptions were revised with a particular focus on the description of learning outcomes (active verb). The revised descriptions were assessed by the PhD coordinators at each department and the Vice Rector. This process is a part of the ordinary quality assurance system.

b) Curricular Mapping Learning Goals Mandatory PhD Courses 2017-2018

In 2017, an initial mapping was done for the PhD courses offered at NHH for the spring and autumn semester. This mapping included both mandatory and elective courses. The six specialisations each have a set of mandatory courses within their specialisation. Furthermore, since the students within each specialisation may follow different tracks with different mandatory courses (for the same specialisation), it was decided to adjust the mapping the following year. A new mapping of the mandatory courses within each specialisation/track was carried out in February 2018, shown in Table 39. This mapping showed a clearer picture of the programme level learning outcomes (learning goals) covered in the courses.

Table 39 Curricular mapping of mandatory PhD courses 2017-2018

Accounting, Auditing and Law Track 1	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8
MET501C			X	X	X		X	
MET524		X				X	X	
MET501A	X		X	X	X	X		
MET504	X	X		X			X	
Accounting, Auditing and Law Track 2	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8
MET501C			X	X	X		X	
MET524		X				X	X	
MET510		X		X		X	X	
ECS503	X		X	X	X		X	
Business and Management Science	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8
ECS504			X	X			X	
MET510		X		X		X	X	
BEA511	X		X	X	X		X	
BEA512	X		X	X			X	
BEA513			X	X				
BEA514	X		X	X	X		X	
BEA517			X	X			X	
ECS503	X		X	X	X		X	
Economics	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8
ECS503	X		X	X	X		X	
ECS504			X	X			X	
ECS505			X	X	X		X	
ECS502	X		X	X	X		X	
MET510		X		X		X	X	
Finance	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8
FIN501			X	X				
FIN502			X	X				
FIN511			X	X				
FIN521	X		X	X	X		X	
MET510		X		X		X	X	
ECS503	X		X	X	X		X	
Professional and Intercult. Communication	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8
MET504	X	X		X			X	
MET510		X		X		X	X	
MET524		X				X	X	
MET522		X	X	X	X		X	
Strategy and Management	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8
MET513			X	X			X	
MET524		X				X	X	
MET501-B	X	X	X	X	X	X	X	
MET501-A	X		X	X	X	X		
MET504	X	X		X			X	
MET512	X	X	X	X	X	X	X	
MET522		X	X	X	X		X	
ORG520	X		X	X	X	X	X	
MAR528	X						X	X

The mapping demonstrated that LO1-LO7 are covered in learning outcome descriptions for the courses within each specialisation/tracks. In particular, the students obtain foundational knowledge in LO3 and LO4 regarding application of methods and how to formulate and analyse research problems.

The students also have mandatory courses in the philosophy of science and ethics (LO2 and LO6) in correspondence with the national regulations given by the Norwegian Association of Higher Education Institutions. The mapping also shows that the students receive training in presenting and discussing research (LO7). Moreover, the students must complete a mandatory course in pedagogy (no credits) (LO8).

The students receive some training in LO1 and LO5. However, it is not expected of them to be in the forefront of knowledge or carry out research at an international standard at this stage in the programme. The students' independent research work towards a successful completion of the doctoral thesis, will contribute to increase their level of competence in these areas. In addition to the courses in the training component. The students must complete a mandatory course in pedagogy (no credits) course.

c) Identification of measurement point and developing assessment instrument

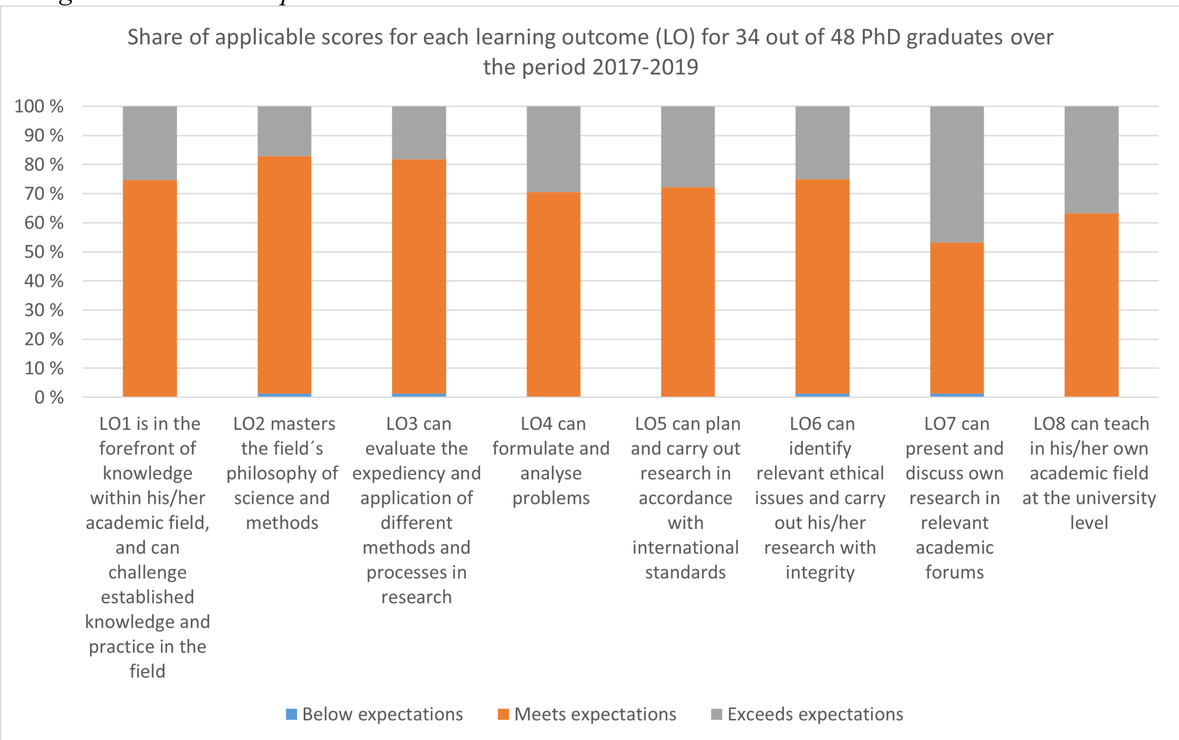
The defined LOs should be achieved throughout the programme ending with a thesis and a public defence. The students finish their course work within the first two years of the programme. Since the students are not expected to achieve the LOs at the programme level at this early stage, it was decided to start the pilot testing in connection with the public defence and trial lecture which includes the evaluation of the doctoral thesis. The midway evaluation and the students' annual progress reports was also considered to be a measuring point or be included as a source for information in the AoL system.

A rubric was developed based on the eight LOs defined at the PhD programme level. The assessment rubric includes a description of achievement performance that; exceeds the expectations, meets the expectations and below expectations. Not applicable was also an option. Each of the members in the evaluation committee filled out the rubric independently.

c) Collection and discussion of results

Measurements of the learning outcomes started in January 2017 and the measurements were completed in 2019. The total number of responses received were 79 rubrics on 34 graduates. The sample size is 71% of the total number of graduates for the period 2017-2019 (48 graduates in total).

Figure 1 Share of applicable scores for each learning outcome based on 79 rubrics for 34 out of 48 PhD graduates over the period 2017-2019



The option “Not Applicable” was chosen by 4% of the evaluators of LO2, by 3% of the evaluators for LO3, and 9% of the evaluators of LO6. It is somewhat disconcerting that this response was chosen for LO2 and LO3. However, it may reflect on the wording of the learning outcomes. LO2 has been debated to be too vague or unprecise particularly in regards to what is meant by “masters the field's philosophy of science”. When it comes to LO6 on ethics, however, this makes sense since not all PhD theses provide a suitable basis for evaluation this. The AoL Committee and Research Committee has discussed whether a more appropriate point of data collection might be at the course level following an ethics course.

For 84% of the candidates, all three evaluation committee members have completed the rubric. Naturally, they could be expected to differ somewhat in their scoring. None of the scores were different by more than one level, i.e., for none did one evaluator score “Exceeds expectations” while another scored “Below expectations.” Furthermore, for all learning outcomes, they were mostly in agreement, cf. Table 40.

Table 40 Share of candidates scored by three evaluators for which the evaluation was unanimous on a given learning outcome

	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8
Share of agreement	82%	82%	73%	73%	73%	73%	59%	73%

To sum up, in the AoL-work described above, the description also included an assessment of the learning outcome descriptions at programme level and how the study plan meets these.

Overall, the results indicate that the graduates overall seem to achieve the learning outcomes of the programme. Moreover, the results indicate that for half of the learning outcomes, less than 2% of graduates are below expectations and for the remaining learning outcomes, none are below. Hence, making curriculum changes did not seem warranted from the data gathered.

Instead, the AoL Committee and Research Committee discussed the appropriateness of the wording of the learning outcomes, alternative measuring points, developing more detailed rubrics for each learning outcome. The results from the pilot testing guided both the revision of selection of learning goals and the AoL measurements. The learning goals in the AoL process were subsequently revised and reduced in number.

3. Overview AoL work 2020-2022

The revised and currently used learning goals for the PhD programme were adopted in December 2019. The revised learning goals corresponds to those of the other programmes at NHH and are as follows:

Learning Goal - Relevance (LG1): Graduates will be able to apply appropriate theories and methodologies to relevant research problems.
• Learning Objective (LO1a): Can formulate relevant research problems • Learning Objective (LO1b): Can extend theoretical, empirical or methodological insights and apply appropriate analysis
Learning Goal - Communication (LG2): Graduates can communicate their research in a clear and effective manner
• Learning Objective (LO2a): Can present and discuss own research in relevant academic forums • Learning Objective (LO2b): Can produce research papers in accordance with international standards
Learning Goal - Sustainability (LG3): Graduates demonstrate insight and awareness of sustainability issues in their research fields
• Learning Objective (LO3a): Can relate research in their field to sustainable value creation

This section includes a description of a) Identifying measurement points, b) curricula mapping of courses, c) Results and evaluations d) Further plans for the AoL work.

a) Identifying measurements points

Detailed rubrics for the learning objectives defined for the three learning goals were developed in cooperation with the AoL Committee and Research Committee and were adopted by the Vice Rector for Research. The following measurement scheme was decided.

- *LO1a, LO1b and LO2b:* These learning objectives were measured by assessing the PhD thesis, using the chair of the evaluation committee as respondent for the rubrics. The rubric was assessed on 30 theses. To get a large enough number of theses, a mix of thesis from past public defences from 2017- March 2020, and thesis from public defences from April-June 2020 was used. Thesis from all six specialisations were included. The measurements were completed in the summer 2020.
- *LO2a:* A separate rubric was developed to measure LO2a in connection with the public defence (trial lecture and the PhD candidate's discussion with the evaluation committee). The chair of the evaluation committee was the respondent, and the rubric was assessed on 30 public defences. The measurements started April 2020 and was completed in January 2022.
- *LO3a:* It was initially suggested to arrange a sustainability seminar/course for the PhD students and measure LO3a in connection with the seminar/course. Following discussion with the other programme managers in the summer 2020 it was decided to change the plans and instead of first implementing a seminar/course with focus of sustainability, the PhD programme would, in accordance with the other programmes, first measure and thereafter evaluate if changes in the curriculum was warranted. A sustainability assignment and rubric were developed and approved 16.11.20. The assignment was sent to the PhD students that was admitted in 2017 and 2018 by email in December 2020. There was one evaluator that assessed all 40 assignments that were submitted.

b) Curricula mapping of courses

A curricula mapping of PhD courses was carried out in 2021. The following courses were included in the curricula mapping; courses offered fall 2020, courses offered spring 2021, in addition courses listed on our webpage (https://www.nhh.no/en/study-programmes/phd-programme-at-nhh/phd-courses/) under "PhD Course Portfolio".

Each of NHHs six PhD specialisations have individual sets of mandatory PhD courses for their PhD students. The mapping demonstrated that the intended learning outcomes of the mandatory courses (for each of the six specialisations) cover the learning objectives related to learning goal 1 and learning goal 2. Furthermore, the curricula mapping revealed that sustainability was not explicitly mentioned in the intended learning outcomes in any PhD courses. However, in some courses, sustainability was included in courses without it being explicitly mentioned in intended learning outcomes. From the fall 2022, sustainability will be emphasized in the intended learning outcomes in relevant courses.

d) Results and evaluations

Results of assessment from the first round 2020-2022 of AoL measurements of learning objectives and traits for the three learning goals are presented in Table 41.

Table 41 Summary of results traits (in %)

LO1	Traits	Exemplary	Satisfactory	Unsatisfactory
LO1a (n=33)	Formulate problems	73	27	0
LO1b (n=33)	Choose appropriate theory/methods	39	61	0
	Uses theories/methods appropriately	55	45	0
	Draws valid conclusions	51	49	0
	Contribution	48	52	0
LO2a (n=30)	Organisation	83	17	0
	Delivery	77	23	0
	Use of time	83	17	0
	Visual aids	60	40	0
	Research question(s)	80	20	0
	Methods	67	33	0
	Results	77	23	0
	Contribution	57	43	0
	Audience interaction	86	14	0
LO2b (n=33)	Clarity research problems and arguments	68	32	0
	Vocabulary	58	42	0
	Technical writing skills	81	19	0
	Consistent and correct use of referencing system	88	12	0
	Academic integrity	64	36	0
	International standards of research papers in the field	61	39	0
LO3 (n=40)	The concept of sustainability	65	27.5	7.5
	The concept of value creation	62.5	33.5	5
	Relating research field to value creation/SDG	90	7.5	2.5

Table 42 shows a summary of the aggregated results of the measurements for the PhD programme for the first round of measurements.

Table 42 Summary of results for the PhD programme (in %)

Learning objectives			Exemplary	Satisfactory	Unsatisfactory
LO1	a	Can formulate relevant research problems	73	27	0
	b	Can extend theoretical, empirical or methodological insights and apply appropriate analysis	48	52	0
LO 2	a	Can present and discuss own research in relevant academic forums	74	26	0
	b	Can produce research papers in accordance with international standards	68	32	0
LO3	a	Can relate research in their field to sustainable value creation	72	23	5

- *LO1a, LO1b and LO2b:* The results showed that for these learning objectives, no student scored unsatisfactory, and a solid share scored exemplary. Based on these results, it does not seem necessary to make changes to the programme at this time. When the measures show that the programme achieves the learning objectives, there are several alternatives for the next step, which has been discussed with the Research Committee and the AoL Committee.

  The recommendation was to apply the same assessment rubrics on a new measuring point earlier in the programme. The proposed and decided point of measurements is the midway evaluation (also known as paper defence, or proposal defence), which is a common measure for all PhD students in the programme. It marks the completion of the training part (courses) which ideally should prepare them to do research, write their thesis and produce research papers. This will amount to an elevation of ambition as students have matured less and have less research practice. The results will expectedly be lower than at the end of the programme, and measurements may reveal where additional efforts can be made early in the programme. The existing rubrics will be used to assess at least 30 midway evaluations and the measurements started spring 2021.

- LO2a: When the measurements were completed for LO2a in January 2022, the results showed also for LO2a that no student scored unsatisfactory, and a solid share scored exemplary.

  When the first round of measurements was completed for LO1a, LO1b and LO2b and it was decided to apply the same assessment rubrics on a new measuring point earlier in the programme for these learning objectives, it was also decided (Case 19/21) that even though the first round of measurements were still not completed the midway evaluation would also be used as a measuring point for LO2a (in parallel with the initial measurement at the public defence). This was suggested in order to get an overall measurement of the learning objectives associated with learning goals 1 and 2 with the same measuring point earlier in the programme. In connection with including the midway evaluation as a measuring point, guidelines for the midway evaluation have been revised and approved by the Vice Rector for Research 21.06.21.

  The measurements of LG2a in connection with the midway evaluation started in fall 2021 using the same assessment rubrics and will continue until at least 30 midway evaluations has been assessed.

- LO3a*:* The results from the first round of measurement showed the following: Exemplary 73%, Satisfactory 23% and Unsatisfactory 5%. The result of 5% of the students scored unsatisfactory, is the highest for any AoL measurements in the PhD programme (including the pilot). The PhD programme have a high ambition, and from experience, the proportion of unsatisfactory results are usually close to zero.

  The curricula mapping carried out prior to the measurements revealed that sustainability was not explicitly mentioned in the form of learning outcomes in any PhD course. However, in some courses, sustainability is included without it being explicitly mentioned.

  Based on the discussions of the results it was decided to make sustainability more explicit in the PhD programme and the following programme changes are planned:

  - A seminar on sustainability early in the PhD programme (April 2022)
  - Sustainability will be emphasized in the learning outcomes descriptions in courses where it is relevant from fall 2022 and forward.

  This is in line with earlier discussions in the Research Committee, the AoL Committee and subsequent conversations with academic staff in the field of sustainability. One suggestion for measurement is to include it in the formalities around the midway evaluation, but the most appropriate measurement point is under discussion in the Research Committee and is therefore not fully determined yet. The first cohort to be measured is the 2021 cohort, as they will be the first to attend the seminar on sustainability.

The same assessment rubrics is planned to be used for comparability. If adjustments are needed, these should be made in addition to the learning objectives and traits in the rubrics that were used in the first measure to facilitate comparison.

EVENTUELT - MØTE 3/22

Saksbehandler Randi Holmås
Arkivreferanse 21/03485-10

Utvalg	Møtedato	Utvalgsnr
Styret ved Norges Handelshøyskole	20.04.2022	25/22

Forslag til vedtak:

Vedtak i saker under Eventuelt behandles i møtet.

Orienteringssak 3/22

Årsrapport klagenemnda NHH 2021

NHH

ÅRSRAPPORT 2021

innledning

1. INNLEDNING

Klagenemnda behandler klager over enkeltvedtak som er fattet ved NHH. Nemnda behandler også klager over formelle feil ved eksamen. Klager på vedtak fattet av faginstanser ved NHH går i første omgang til samme seksjon som har behandlet saken. Dersom de ikke finner å kunne omgjøre eget vedtak går saken til behandling i Klagenemda forutsatt at klager ikke ønsker å trekke saken. Nemndas vedtak i klagesaker er endelige og kan således ikke påklages.

I tillegg behandler og treffer nemnda vedtak i noen sakstyper som førsteinstans. Dette gjelder saker om mistanke om fusk, bortvisning fra NHH samt saker om forfalskning av søknadspapirer i forbindelse med opptak. Klagenemndas vedtak i disse sakene kan påklages til Felles klagenemnd, som er den nasjonale klagenemnda for nærmere bestemte vedtak fattet ved universiteter og høyskoler. Eventuelle fuskesaker til Felles Klagenemd tas rutinemessig opp til fornyet vurdering i NHHs klagenemnd før oversendelse.

Klagenemda ved NHH avholdt i 2021 totalt 10 møter. Det ble behandlet 101 saker hvorav 92 saker var klager over vedtak fattet av fagavdelinger ved NHH og 9 saker gjaldt fusk. Tre av sakene gjaldt fornyet behandling av klagenemndas vedtak i en fuskesak før oversendelse til Felles klagenemnd.

I 2021 fikk klager medhold av NHHs klagenemnd i ett tilfelle der saken gjaldt en klage over formelle feil ved eksamen. I resterende saker ble seksjonenes vedtak opprettholdt.

2. KLAGENEMNDAS SAMMENSETNING

Klagenemnda ved NHH består av ekstern jurist (leder) to vitenskapelig ansatte og to studenter. Nemnda har hatt følgende sammensetning i 2021:

Leder: Professor Asbjørn Strandbakken, UiB

Vara for leder: Professor Bjørnar Borvik, UiB

Representanter for de vitenskapelige ansatte:

Medlem: Professor Jonas Andersson, NHH, Professor Øystein Gjerde, NHH fra 01.08.2021

Vara: Førsteamanuensis Jørgen Haug, NHH

Medlem: Førsteamanuensis Beate Sandvei, NHH

Vara: Førsteamanuensis Linda Orvedal, NHH

Studentrepresentanter vårsemesteret 2021:

Medlem: Finn Lucas Griggs	Vara: Balder Belsvik
Medlem: Stine Sisseldotter Stolpestad	Vara: Hermine Elise Wilhelmsen

Studentrepresentanter høstsemesteret 2021:

Medlem: Stine Sisseldotter Stolpestad	Vara: Hermine Elise Wilhelmsen
Medlem: Oliver Monge Wahlquist	Vara: Bendik Brunvoll

Klagenemndas sekretær: Trude K. Gudmundset, Rektors stab.

3. SAKER 2021

3.1 Klagesaker

3.1.1 Oversikt

Klagenemnda fattet i 2021 vedtak i totalt 92 klagesaker fra studenter. I løpet av den pågående pandemien har det skjedd en kraftig økning av sakstilfanget til klagenemnda. Saksmengden ser imidlertid ut til å ha stabilisert seg det siste året. Sakene fordelte seg som følger:

Type klagesak	**2018**	**2019**	**2020**	**2021**
For sen innlevering	4	13	32	42
Formelle feil	1	6	20	19[1]
Tilrettelegging		4	3	6
Ekstra forsøk eksamen	1	1	6	1
Utvidet studierett	4	2	2	2
Dispensasjon frist	2	1	1	2
Avslag opptak		5	7	9
Overgang til master	2	7	4	1
Annet	10	15	9	10
Antall klagesaker:	**24**	**54**	**84**	**92**
Inkludert saker vedrørende fusk:	**31**	**61**	**100**	**101**

Kategorien «annet» omhandler blant annet klagenemndas årsrapport, klage på søknad om utveksling, innpass av eksterne kurs og utregning av karaktersnitt.

3.1.2 For sen innlevering av eksamen

Sammenliknet med 2020 har det vært en ytterligere økning i saker som gjelder for sen innlevering av eksamen i 2021. Sakene dreier seg i all hovedsak om tilfeller der klager har hatt problemer i forbindelse med digital innlevering der dette ikke kan skyldes forhold ved NHH eller problemer med Wiseflow (NHHs digitale eksamensplattform).

Klagenemnda ser at det kan oppfattes svært belastende for kandidatene når eksamen leveres kort tid etter frist og eksamen ikke blir godtatt innlevert i tide. Hensynet til likebehandling veier likevel tyngst i disse sakene, noe som medfører at fagavdelingens praksis med at fristen overholdes strengt støttes av klagenemnda i de langt fleste sakene.

Kandidatene har et selvstendig ansvar for å sørge for at arbeid med selve innleveringen (konvertering av filer etc.) starter tidsnok, og at det tas høyde for at nettforbindelsen som benyttes er stabil. Der er i flere av sakene dokumentert at klager ikke har fulgt NHHs oppfordringer om å starte innlevering av eksamensbesvarelsen i tide (tidsstempel i Wiseflow). Fra og med høsten 2020 endret NHH regelverket ved at det ble lagt til 15 minutter i etterkant av eksamen. Intensjonen var å gi en ytterligere tydeliggjøring av at det må avsettes tilstrekkelig tid dedikert til klargjøring og innlevering av eksamensbesvarelser. Man antok at dette ville medføre en nedgang i denne type saker, men det har tvert imot skjedd en økning i antall klager i denne kategorien.

[1] Den ene saken omhandlet 33 klager med påstand om formelle feil i samme eksamen

saker 2021

Det er klagenemndas oppfatning at det gis tilfredsstillende informasjon direkte til kandidatene i forkant av eksamen. Prosedyrene er også beskrevet på NHHs hjemmesider. Kandidatene blir i tillegg anmodet om å ta kontakt med seksjon for eksamen ved opplastningsproblemer. Dersom eksamensoppgaven oversendes eksamenskontoret før fristen for innlevering går ut vil eksamensoppgaven etter en nærmere vurdering kunne bli godkjent som innlevert i tide. Hvis oppgaven derimot leveres etter fristens utløp vil dette normalt ikke bli ansett som force majeure da klager ikke har opptrådt i henhold til de beskrevne prosedyrene. Dette ble funnet å være tilfelle i alle sakene i 2021, slik at ingen av klagerne ble gitt medhold.

3.1.3 Klage på formelle feil

Det fremgår av universitetsloven [2] at den som har vært oppe til eksamen eller prøve kan fremme klage over formelle feil, og at sensurvedtaket oppheves dersom feilen «kan ha hatt betydning for kandidatens prestasjon eller bedømmelse av denne».

Også når det gjelder klager over formelle feil i forbindelse med eksamener er økningen i antall saker opprettholdt fra det som var tilfelle i 2019. Sakene spenner over et stort felt, og gjelder alt fra klage over sammensetningen av klagekommisjonen, påstand om at sensur ikke er gjennomført i tråd med kravene i Universitets- og høyskoleloven og NHHs retningslinjer, sensuren ikke er gjennomført på en korrekt og objektiv måte, klage over endring av eksamensspråk, sensorene hadde lagt vekt på at besvarelsen inneholdt utydelig håndskrift, faglig uenighet mellom studentene og den eksamensansvarlige, klager over sensorveiledningene mm. I tillegg gjaldt den ene saken en felles klage fra 33 studenter over en flervalgseksamen. Klagerne trakk frem flere forskjellige momenter, men klagen gjaldt hovedsakelig faglig uenighet mellom studentene og den emneansvarlige. Ingen av klagerne ble gitt medhold av Klagenemnda i 2021.

3.2 Fuskesaker:

Med fusk menes en opptreden i strid med reglene for eksamensavvikling som på en urettmessig måte kan føre til at kandidatens resultater blir vurdert bedre enn ellers. Etter universitetsloven[3] kan en student som fusker få den aktuelle eksamen annullert. I tillegg kan studenten bli utestengt fra NHH og bli fratatt retten til å gå opp til eksamen ved andre læresteder i inntil ett år. En forutsetning for å ilegge reaksjoner som for eksempel annullering av eksamen og utestengelse fra lærestedet er at det subjektive skyldkravet er oppfylt. Det stilles dermed vilkår om at kandidaten har opptrådt «forsettlig» eller «grovt uaktsomt».

En person kan sies å ha opptrådt *forsettlig* når vedkommende har villet den handling som er foretatt. Flere av klagerne argumenterer med at de har vært ukjent med både selve regelverket, og hvilke konsekvenser fusk potensielt kan medføre. Det er imidlertid ikke et krav for at fusk blir ansett som forsettlig at vedkommende som utfører handlingen vet at den er ulovlig. I samtlige saker der studenten har fusket har klagenemda funnet det dokumentert at klager i det minste har opptrådt *grovt uaktsomt*.

Det er Klagenemnda som i sine vedtak avgjør når vedtak om utestenging skal tre i kraft. Vanligvis gjelder utestenging fra påfølgende semester, og gjelder ett eller to semester basert på en vurdering av om fusk i det enkelte tilfellet ansees som «grovt uaktsomt» eller «forsettlig». Det er kun resultatet i den aktuelle eksamen som blir annullert i det semesteret vedkommende har fusket. De andre

[2] Universitetsloven § 5-2 (1) og 5-2 (2)
[3] Universitetsloven § 4-7 og 4-8

resultatene som vedkommende har fått i samme semester blir stående. Studenten kan også ta planlagte eksamener i f.eks. vårsemesteret, dersom vedtaket sier de skal utestenges for høstsemesteret.

Avgjørelsene i nemnda baserer seg i tillegg til sakens fakta på at studentene har en selvstendig plikt til å sette seg inn i det aktuelle regelverket før eksamen avholdes. De bekrefter også at de er kjent med eksamensreglementet når de semesterregistrerer seg. Klagenemnda har gått gjennom informasjonen som sendes ut fra høyskolen i forkant av eksamen om gjeldende regelverk i alle fuskesakene, og denne ansees for å være både grundig og informativ.

I 2021 behandlet NHHs klagenemnd 6 saker som omhandlet fusk, og det ble gjort fornyet vurdering i tre saker som ble klaget inn for Felles klagenemnd. Reaksjonsformen i sakene avhenger av grad av forsett og alvorlighet, og fordeler seg som følger:

	Antall fuskesaker ved NHH (etter konsekvens)			
	2018	**2019**	**2020**	**2021**
Ingen reaksjon/ikke fusk	2	1		
Annullering	4		5	
Annullering og ett semesters utestenging	1	5	6	6
Annullering og to semesters utestenging	0		3	
Fornyet vurdering før oversendelse til Felles klagenemnd	0	1	2	3
Antall saker totalt	**7**	**7**	**16**	**9**

Tre av sakene i 2021 gjaldt plagiat; det vil vanligvis si å sitere kilder eller på annen måte kopiere inn ulikt omfang av tekst fra andre kilder uten tilstrekkelig kildehenvisning eller å presentere eget tidligere arbeid som nytt. De tre andre sakene gjaldt ureglementert samarbeid med medstudent under individuell eksamen.

Tilsynelatende er mengden fuskesaker nesten halvert i forhold til 2020. Ved kontakt med seksjon for eksamen ble det imidlertid opplyst at det fra faglig hold ble meldt inn saker der man mistenkte fusk, men der dokumentasjonen ble vurdert som utilstrekkelig i forhold til å reise formell sak.

3.2.1 Saker fremmet for Felles klagenemd

Totalt tre saker ble i løpet av året meldt inn for Felles klagenemnd, hvorav en ble avgjort i 2021. De øvrige to vil bli behandlet i Felles klagenemnd våren 2022.

Saken der vedtak ble fattet av Felles klagenemnd i fjor gjaldt plagiat under gjennomføring av hjemmeeksamen, der tekstgjenkjenningsprogrammet Urkund viste en tekstlikhet på 25 prosent. Klageren hadde ikke henvist til kildene i sin besvarelse.

Klagenemnda ved NHH behandlet saken og fant at klageren hadde fusket under eksamen, og fattet vedtak om annullering og utestenging i ett semester - vårsemesteret 2021. Det ble hevdet fra klagers advokat sin side at hen ikke hadde utvist subjektiv skyld, men at dette dreide seg om «dårlig fagmessig håndverk» som eventuelt burde få utslag på karakterfastsettelsen.

Felles klagenemnd fant det bevist at forholdet objektivt sett var fusk. Felles klagenemnd viste i den forbindelse til at når man gjengir tekst ordrett må teksten markeres som sitat. Når dette ikke er gjort, vil det for leseren ikke være mulig å skille mellom hva klageren har skrevet og hva andre har skrevet.

I vurdering av om klager hadde handlet grovt uaktsomt eller forsettlig var Felles klagenemnd sin vurdering strengere enn hos underinstansen. Forsett foreligger i de tilfeller hvor en person har tilsiktet en handling. Dette innebærer at klageren må ha vært klar over den faktiske handlingen som medførte at det objektive fuskevilkåret er oppfylt. Det er ikke krav om hensikt om fusk for ä oppfylle kravet til forsettlig utført fuskehandling. Kravet til forsett omfatter heller ikke kunnskap om hvorvidt handlingen er ulovlig eller ikke. I motsetning til Klagenemnda ved NHH fant Felles klagenemnd at klageren hadde fusket *forsettlig* i forbindelse med innleveringen av hjemmeeksamen.

Felles klagenemnd konkluderte derved med at klagen ikke ble tatt til følge, og stadfestet reaksjonen fastsatt av klagenemnda ved NHH. De kommenterte videre at reaksjonen «i alle fall ikke var for streng», da praksisen ved saker om forsettlig fusk normalt er annullering og utestenging i to semestre, ikke ett.

4. ANDRE AKTUELLE TEMA

4.1 Nemndas øvrige aktivitet i 2021

I 2021 ble det avholdt møte mellom leder for nemda, nemndas sekretær og representanter fra seksjon for eksamen. Intensjonen med møtet var blant annet å sikre en felles forståelse for rutiner og prosesser rundt sakene, samt å styrke dialogen mellom nemnda og seksjonen. Det ble presisert at kvaliteten på saksfremleggene fra seksjonene er svært god, og at sakene er godt belyst når de oversendes klagenemnda. Rutinene for prosessflyten mellom seksjonene og nemnda ble revidert i samarbeid med seksjonene i løpet av året.

De senere årene har NHH og UiB hatt felles studentombud. Studentombudet rolle er etter behov å rådgi studentene i alle saker som gjelder forholdet mellom dem og NHH. Det ble i 2021 avholdt møte mellom nemndas leder, nemndas sekretær og studentombudet. Det er sett fra klagenemndas ståsted svært viktig at det er en god dialog mellom alle parter i en potensielt krevende situasjon for studenten. Møtet gikk derved hovedsakelig ut på å informere om de vurderingene som ligger til grunn for nemndas avgjørelser i de forskjellige sakstypene, samt å sikre en god dialog med studentombudet i fortsettelsen.

4.2 Saksbehandlingstid

Fagavdelingene ved NHH har opplevd en sterkt økende mengde i sakene som skal til klagenemnda i løpet av pandemien, og dette har i en del saker forårsaket lang saksbehandlingstid også i 2021. Klagenemda opprettholder den pågående dialogen med avdelingene for å forsøke å gjøre behandlingstiden kortere.

4.3 Advokatrepresentasjon og utgifter

En kandidat har rett til å la seg bistå av advokat [4]fra sak om bortvisning eller utestenging er reist. Utgiftene til dette skal dekkes av institusjonen, etter sats fastsatt etter forskrift om salær fra det offentlige til advokater mv. 3. desember 1997 nr. 1441. I 2021 utgjorde dette kr 1085 pr time.

[4] Universitetsloven § 4-8 (5)

I 2021 var studenten representert av advokat i tre fuskesaker. Samlet beløp advokatutgiftene seg til kr 98.992. Til sammenlikning utgjorde utgifter til salær i 2020 Kr 88 194. Det har i 2021 blitt ført enda strengere kontroll med salærkravene enn tidligere. Det fremgår av regler for god advokatskikk punkt 3.3.1 at: *«Klienten har krav på å få opplyst hvordan advokaten har beregnet sitt salær. Salæret skal stå i rimelig forhold til oppdraget og arbeidet som er utført av advokaten».*

Klagenemnda vil med bakgrunn i de forholdsvis høye advokatsalærene de siste to årene foreslå at det vurderes å fastsette standardsatser for klagesaker som faktureres NHH.

Orienteringssak 4/22

Årsrapport 2021

STUDENTOMBUDET VED NHH

Innhold

1. FORORD

Studentombudets årsrapport er skrevet i tråd med ombudets mandat ved NHH og er offentlig. Årsrapporten for 2021 gir en oversikt over henvendelsene Studentombudet har mottatt, Studentombudets arbeid og innspill til NHH med tanke på forbedringer når det gjelder å sikre at studentenes rettigheter ivaretas. Studentombudet rapporterer årlig til rektor i form av årsrapport, som også legges frem for læringsmiljøutvalget (LMU) og som orienteringssak for styret.

Studentombudet har fra 1. januar 2021 til og med 31. desember 2021 mottatt 106 henvendelser fra NHHs studenter. Mitt første år som Studentombud ved UiB, BAS og NHH har vært både utfordrende og lærerikt. Det har tidvis vært hektisk med mye nytt å sette seg inn i, men mest av alt er det givende å være en uavhengig veiviser juridisk, prosessuelt og taktisk, i tillegg til å være et medmenneske med taushetsplikt.

Med en verden og et samfunn preget av koronapandemi – var jeg spent på hvordan det skulle bli å starte opp som nytt Studentombud på hjemmekontor. Heldigvis var arbeidsform og IT-løsninger godt tilrettelagt for fjernarbeid, slik at oppstarten på hjemmekontor gikk relativt smertefritt.

Pandemien har preget oss alle på ulike vis, både godt og vondt. NHH har under deler av pandemien nærmest vært tomt og forlatt. Pandemien har i det ene øyeblikket satt noe på vent, og i et annet bidratt til innovasjon og nyskapning. Hele organisasjonen har måttet tilpasse sin drift og lagt til rette for gjennomføring av undervisning, vurdering og forskning under krevende forhold i stadig endring. Mitt helhetsinntrykk er at NHH, studenter og ansatte har vært omstillingsdyktige og sammen jobbet for best mulige løsninger i en utfordrende pandemitid.

Avslutningsvis vil jeg takke studenter og ansatte ved NHH for et godt samarbeid gjennom 2021. Jeg setter stor pris på alle som har invitert meg inn i diskusjoner og ulike forum for å styrke læringsmiljøet, finne gode løsninger og utvikle bedre rutiner ved NHH.

Bergen, februar 2022

Karsten Olav Aarestrup

Studentombud ved NHH

2. OM STUDENTOMBUDET

2.1 Om studentombudsordningen

Norges Handelshøgskole (NHH) har hatt studentombud siden 1. januar 2016. Ombudsordningen ble senere lovfestet. Den 1. august 2019 trådte lovendringen i universitets- og høyskolelovens (uhl.) § 4-17 i kraft. Etter denne bestemmelsen skal studenter i Norge ha tilgang til et Studentombud. Fra høsten 2020 leverte Universitetet i Bergen studentombudstjenesten for NHH. Studentombudet har gjort NHH oppmerksom på at avtalen om delt studentombudstjeneste med UiB er utgått og må fornyes.

Studentombudet utfører sitt arbeid med utgangspunkt i uhl. § 4-17 og mandatet som styret ved NHH har fastsatt. Studentombudet er en uavhengig bistandstjeneste som har i oppgave å ivareta rettssikkerheten til studentene gjennom råd og veiledning. At Studentombudet er en uavhengig bistandstjeneste kommer til syne organisatorisk ved at ombudet er plassert under HR-avdelingen ved UiB. Dermed har Studentombudet en uavhengig stilling i forhold til NHHs organisasjon.

Studentombudet er et rådgivende organ og fatter ikke vedtak i enkeltsaker. Det er et grunnleggende prinsipp at Studentombudet skal fungere på en måte som ikke fratar andre enheter ved NHH ansvar og arbeidsoppgaver. Studentombudet skal være et supplement til øvrige systemer og rutiner for veiledning og oppfølging. Studentombudet kan ikke instrueres.

Studentombudet sin viktigste funksjon er å gi råd om rettigheter og plikter i saker som gjelder studentenes studiesituasjon. Studentombudet er ikke representant på vegne av eller for studentene i enkeltsaker, men gir uavhengig rådgivning og saksgjennomgang. Bistand kan innebære oppfølgning overfor NHHs ulike enheter dersom det er behov for oppfølging av rutiner, rettighetsavklaring eller det avdekkes saksbehandlingsfeil.

Ansatte har anledning til å ta kontakt med Studentombudet om kritikkverdige forhold som gjelder studentene sin studiesituasjon, for veiledning om studentenes rettigheter og for veiledning om reglene for saksbehandling i forvaltningen som gjelder studentsaker.

En naturlig følge av ombudets mandat, er at saker også tas opp på eget initiativ, det vil si uavhengig av enkeltsaker. Studentombudet kan likevel få informasjon om feil via enkeltsaker. Saker som ombudet tar opp på eget initiativ kan eksempelvis omhandle saksbehandlingsfeil, svakheter i rutiner, mangel på rutiner eller regler, manglende samsvar mellom lokale og sentrale regler, samt systemfeil.

Studentombudet mottar henvendelser fra studenter og avgjør om henvendelsen er innenfor ordningen. Dersom henvendelsen ikke er innenfor ordningen, vil vedkommende få hjelp til å finne veien videre til rett sted. Det er gratis og uforpliktende for studenter å ta kontakt med ombudet. All kontakt med Studentombudet er underlagt taushetsplikt og henvendelser fra studenter og ansatte behandles konfidensielt.

Arbeidet som Studentombud er allsidig og omfatter i tillegg til rådgivning og veiledning av studenter, deltakelse på kurs og konferanser, foredragsvirksomhet, møter og besøk til aktuelle enheter ved NHH.

2.2 Studentombudets arbeid i 2021

Mye av studentombudets arbeid i 2021 har bestått i å gi råd og veiledning til studenter, blant annet ved å svare opp studenthenvendelser. Henvendelsene kommer til studentombudet først og fremst via telefon, SMS, besøk på kontoret eller e-post. Henvendelsene varierer i omfang og kompleksitet.

En stor andel studenter som henvendte seg til ombudet i 2021 ønsket en uavhengig person å diskutere sin sak eller opplevelse med, uten at saken nødvendigvis ble tatt videre. Noen studenter ønsker at Studentombudet blir med som en observatør og støttespiller i møte med institusjonen, mens andre foretrekker å rådføre seg med ombudet uten at dette blir tatt opp i studentens møte med NHH.

Det er alltid opp til studenten selv i hvilken grad ombudet involveres. Det er også stor variasjon i tidsbruk knyttet til den enkelte henvendelse. Noen henvendelser avklares med en rask samtale eller svar på e-post, mens andre krever jevnlig oppfølging over flere uker og måneder.

Grunnet pandemisituasjonen med tilhørende restriksjoner og smitteverntiltak har det i 2021 vært avholdt flest digitale møter via Zoom eller Teams med NHHs studenter. Det har blitt holdt fysiske møter dersom studenten har ønsket dette eller sakens karakter tilsier at fysisk møte er mest hensiktsmessig. Det har også blitt avholdt møter utendørs – i form av «walk and talk» – som en tilpasning til pandemiens restriksjoner og hensynet til smittevern.

Studentombudet har i 2021 også drevet med informasjons- og presentasjonsvirksomhet, i tillegg til å arbeide med egne planer og rutiner for videre arbeid. I løpet av første halvdel av 2021 fikk jeg presentert meg via digitale plattformer for organisasjonens ledelse, saksbehandlere og Læringsmiljøutvalget.

2.3 Kontaktinformasjon

Informasjon om Studentombudet finnes på nettsiden til NHH[1]. Studentombudet har kontorsted på Studentsenteret i 2.etasje (kontor 214) i Parkveien 1. Grunnet tidvis stor pågang og mange henvendelser må avtaler gjøres på forhånd, enten per telefon eller e-post:

E-post: studentombod@nhh.no // studentombud@nhh.no

Telefon: (+47) 482 86 130

[1] https://www.nhh.no/for-studenter/servicesenteret/studentombud/

2.4 Studentombudenes nettverk

Studentombudet er del av et nasjonalt, skandinavisk og europeisk nettverk for Studentombud. Gjennom deltakelse i ombudsnettverkene har vi hatt gode faglige diskusjoner, god dialog og verdifull erfaringsutveksling. Dette bidrar til å styrke ombudets kompetanse og kvalitet på Studentombudets tjenester overfor NHHs studenter.

Det nasjonale nettverket for Studentombud i Norge avholder jevnlige nettverkssamlinger med faglig innhold. I oktober 2021 ble det arrangert studentombudskonferanse for det nasjonale nettverket i Kristiansand, der UiA var vertskap.

I tillegg til nettverkssamlinger arrangeres det digitale temabaserte møter. Slike kontaktflater er både nyttige og viktige for faglig utvikling og harmonisering av praksis.

Bildet viser Studentombudene som deltok på den nasjonale studentombudskonferansen i oktober 2021 i Kristiansand. Foto: UiA.

3. STATISTIKK

3.1 Saker i 2021

Kapittel 3 inneholder statistikk og en oversikt over henvendelser Studentombudet har mottatt i rapportperioden fra og med 01.01.21 til og med 31.12.21.

Det vil i rapporten bli redegjort for hvordan henvendelsene fordeler seg år for år, fra måned til måned, hvordan henvendelsene behandles og hvilke sakstype henvendelsene kategoriseres innenfor.

Studentombudet ser det nødvendig å presisere at statistikken er en redegjørelse av mottatte henvendelser. Det er ikke hensiktsmessig eller mulig å trekke noen konklusjon om den helhetlige tilstanden på NHH ut fra statistikken som presenteres, men den kan ha verdi som et supplement til overordnede undersøkelser. Gjentakende tilbakemeldinger og saksforhold som fortjener særskilt oppmerksomhet adresseres i kapittel 4.

3.2 Antall saker per år fra 2017 til 2021

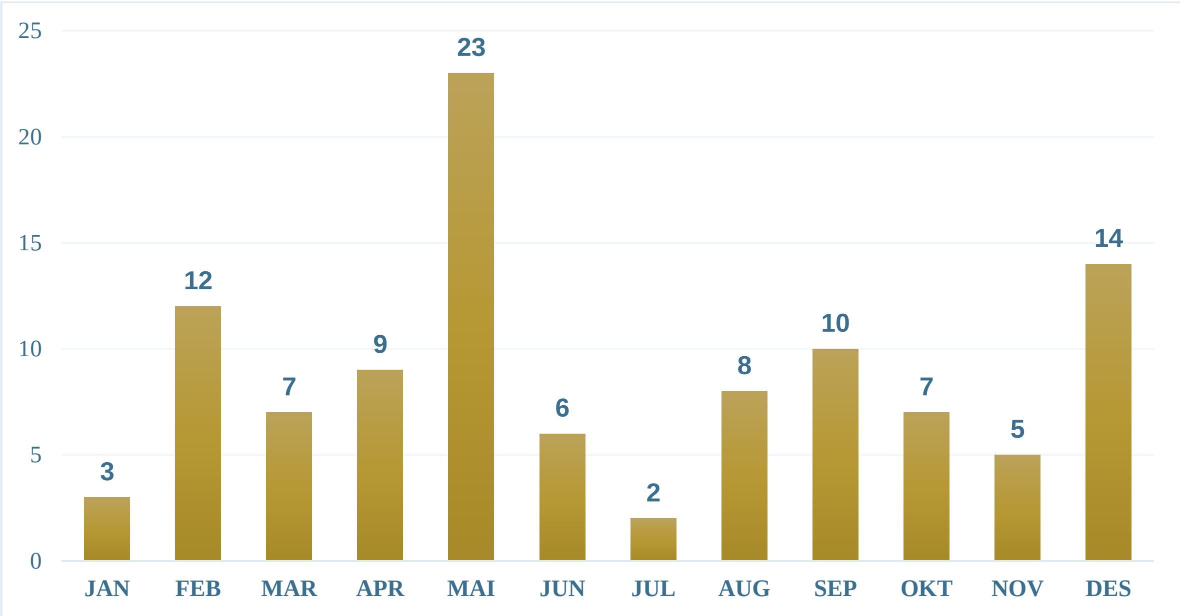
Figur 1. Figuren viser et stolpediagram med en fremstilling av saker mottatt år for år: 2017 (39). 2018 (58). 2019 (63). 2020 (61). 2021 (106).

For kalenderåret 2021 mottok Studentombudet totalt 106 henvendelser fra NHHs studenter. Som statistikken viser har det vært en markant økning i henvendelser til Studentombudet i 2021, sammenlignet med tidligere år. En del av henvendelsene i 2021 kan relateres direkte til covid-19-pandemien.

Den betydelige økning har slik Studentombudet erfarer sammenheng med koronapandemiens følger og innvirkning på studentenes studiehverdag, det være seg alt fra undervisning, studiemiljø, utveksling og eksamen.

Henvendelser som gjelder informasjon om studentombudsordningen eller som er sendt feil, er ikke tatt med i beregningen av antall henvendelser. Det samme gjelder spørsmål som stilles i forbindelse med opplæring, møtevirksomhet, kurs eller lignende.

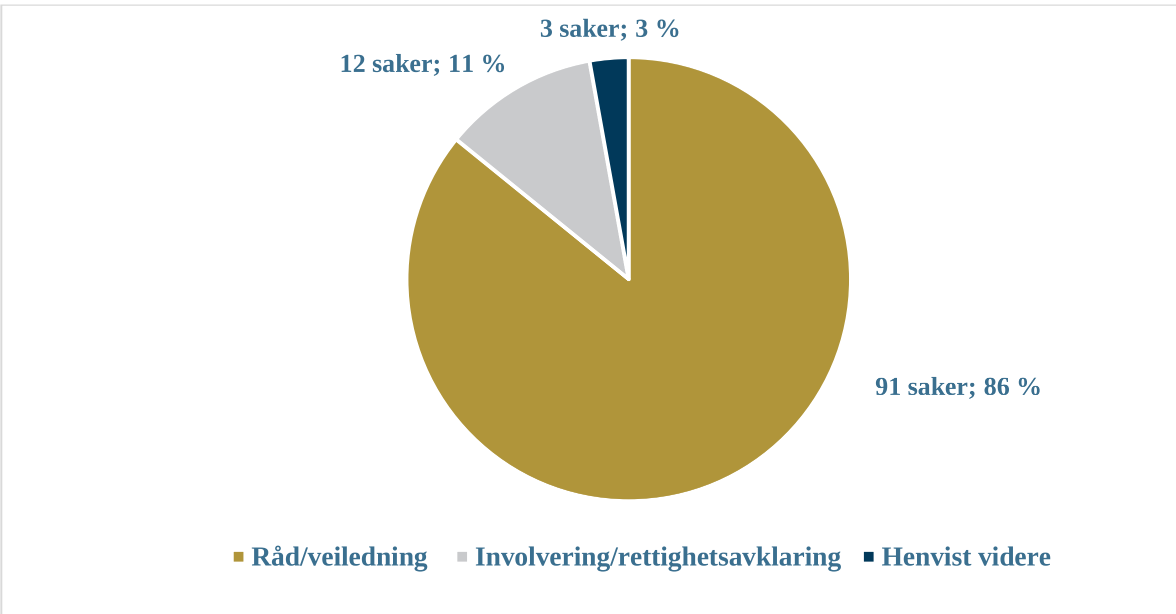
3.3 Antall henvendelser fordelt per måned i 2021



Figur 2. Figuren viser et stolpediagram med antall henvendelser fordelt per måned: Januar (3). Februar (12). Mars (7). April (9). Mai (23). Juni (6). Juli (2). August (8). September (10). Oktober (7). November (5). Desember (14).

Antall henvendelser per måned viser at det er noe ulik tilstrømming av henvendelse fra måned til måned. Det kan være ulike grunner til ulik mengde henvendelser, blant annet erfarer Studentombudet at særlig ferieavvikling og eksamensgjennomføring virker inn på statistikken.

3.4 Saker kategorisert etter behandlingsmåte



Figur 3. Figuren viser et sektordiagram med en fremstilling av saker fordelt på kategorier etter behandlingsmåte: Råd/veiledning (91 saker som utgjør 86%). Involvering/rettighetsavklaring (12 saker som utgjør 11%). Henvist videre (3 saker som utgjør 3%).

Studentombudet følger opp alle mottatte henvendelser. Henvendelsene kommer til ombudet via ulike kanaler. Flesteparten av henvendelsene i rapportperioden har kommet via e-post og telefon. Noen henvendelser lar seg besvare med én e-post eller telefonsamtale, mens andre henvendelser krever mer tid, undersøkelser, oppfølging og involvering. Det er varierende hvor lenge studenter har behov for bistand, og/eller hvor tidkrevende det er å finne en løsning i dialog med vedkommende enhet. Henvendelsene varierer stort i omfang og kompleksitet.

Studentombudet har som utgangspunkt å gi studentene tilstrekkelig med råd og veiledning til at de løser saken på egen hånd. I visse tilfeller der studenten ikke kommer videre med saken overfor aktuell enhet – og relevante forhold fremdeles står ubesvart – kan ombudet etter samtykke fra studenten ta direkte kontakt med saksbehandler. Studentombudets behandling og oppfølgning av studenthenvendelsene kan overordnet kategoriseres på tre måter:

1. Studenten gis alminnelig råd og veiledning.
2. Studentombudet involveres og følger opp saken overfor den aktuelle enhet på NHH etter samtykke fra studenten.
3. Dersom henvendelsen faller utenfor Studentombudets mandat henvises studenten videre til rett instans.

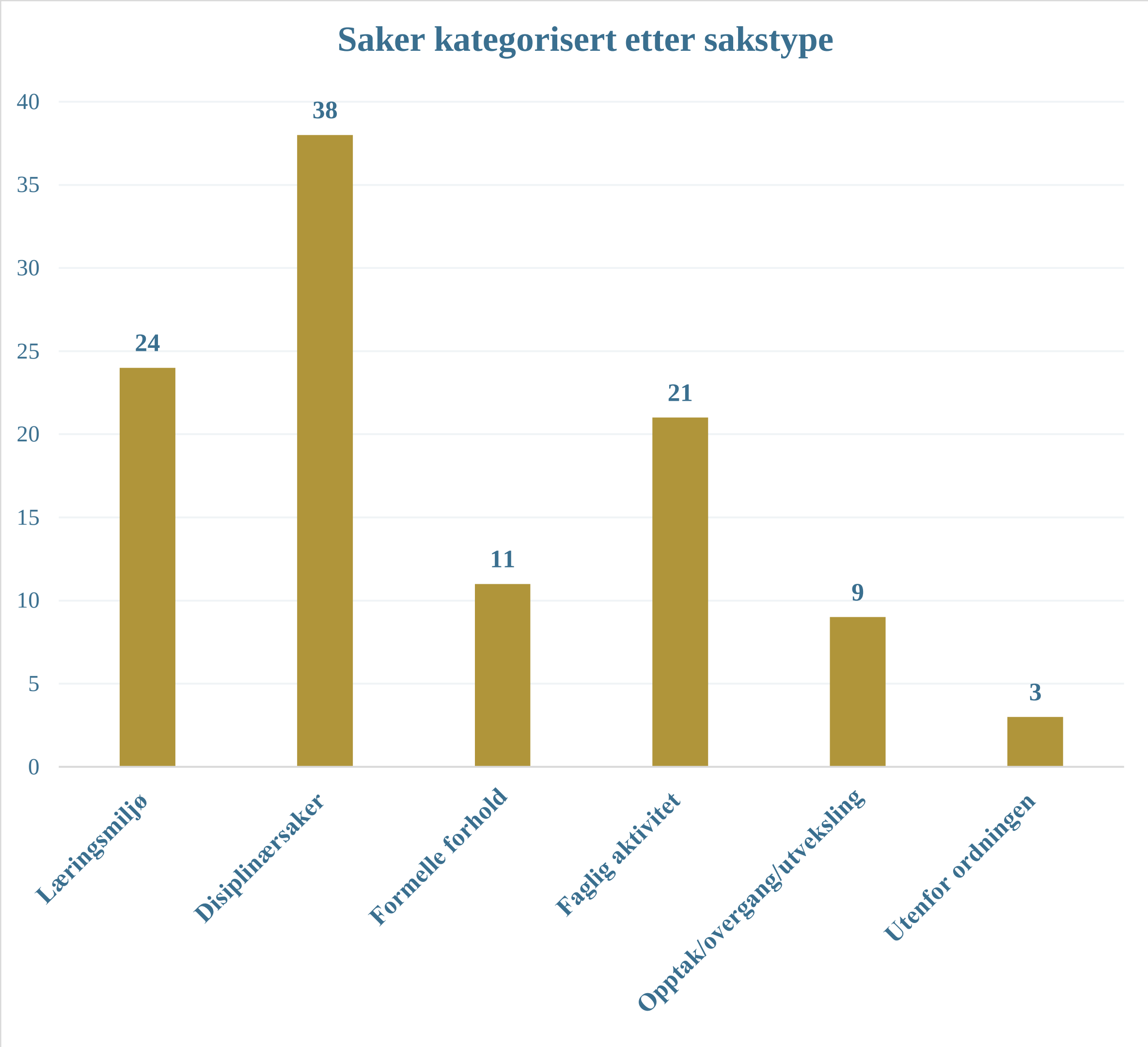
3.5 Henvendelser kategorisert etter sakstype i 2021

Henvendelser blir plassert i én hovedkategori. Hver hovedkategori har underkategorier. Selv om en henvendelse ofte kan plasseres i flere kategorier, gjør Studentombudet en vurdering av hva som er hovedinnholdet i henvendelsen og plasserer den i en av følgende hovedkategorier:

- **Læringsmiljø**
- **Disiplinærsaker**
- **Formelle forhold**
- **Faglig aktivitet**
- **Opptak/overgang/utveksling**
- **Utenfor ordningen**

Se eget vedlegg i kapittel 5.2 for en nærmere beskrivelse og redegjørelse for de ulike kategoriene.

Andelen disiplinærsaker i 2021 er høy. En stor andel av disiplinærsakene omhandler henvendelser fra studenter som er mistenkt for fusk på eksamen eller fusk i forbindelse med obligatoriske arbeidskrav. Fuskesaker kan resultere i at studentens besvarelse annulleres og at studenten utestenges i ett eller to semestre. Etter uhl. § 4-7 første avsnitt bokstav b og uhl. § 4-8 tredje avsnitt er det anledning til å reagere med annullering av eksamen eller prøve, og/eller utestenging og fratakelse av studieretten i inntil ett år. I de sakene det fattes vedtak om utestenging fattes det samtidig vedtak om annullering.



Figur 4. Figuren viser antall henvendelser kategorisert etter sakstype: Læringsmiljø (24). Disiplinærsaker (38). Formelle forhold (11). Faglig aktivitet (21). Opptak/Overgang/utveksling (9). Utenfor ordningen (3).

4. UTVALGTE SAKSOMRÅDER

4.1 Behandling av saker som gjelder innlevering av studentbesvarelser etter frist – Force majeure

Studentombudet mottok i 2021 mange henvendelser som gjaldt avvisning av eksamensbesvarelser som var levert inn etter fristen. Forskrift om fulltidsstudiene ved Norges Handelshøyskole § 4-3 (1) slår fast at «frister knyttet til en vurderingsordning er absolutte». Den overordnede regelen er dermed klar og tydelig. Det er ikke anledning for NHH sine studenter å levere en besvarelse etter innleveringsfristen og få denne vurdert.

Bestemmelsen i § 4-3 (1) åpner ikke i seg selv for unntak. Likevel er det slik at ombudet er gjort kjent med at Studieadministrativ avdeling praktiserer en unntaksregel i tilfeller da for sen innlevering skyldes helt ekstraordinære og upåregnelige hendelser, såkalte force majeure-tilfeller, som studenten ikke kunne unngå eller overvinne konsekvensene av. En slik unntaksregel mener jeg er svært viktig, særlig av hensyn til studentenes rettssikkerhet.

Unntaksregelen må ses i lys av likebehandlingsprinsippet. Med mindre det foreligger særegne omstendigheter – utenfor studentenes kontroll – vil det riktige være at besvarelser som leveres etter fristen ikke blir vurdert. Dette av hensyn til likebehandling studentene imellom.

I 2021 har jeg blitt fremlagt saker fra studenter der jeg mener NHH burde utvist skjønn og anvendt unntaksregelen. Dette ble formidlet til eksamenskontoret, blant annet i e-post datert 19. oktober 2021. Min bemerkning knyttet seg til tilfeller der det er teknisk svikt på IT-utstyr som både er ekstraordinære og upåregnelige for studentene.

> I ett tilfelle var flere utvekslingsstudenter i gang med innlevering av sin eksamensbesvarelse, men ble forhindret i å levere innen fristen grunnet omfattende strømstans kort tid før innleveringen ble påbegynt. Studentene som var rammet kunne fremlegge dokumentasjon fra både Sammen og nettleverandøren, som bekreftet at strømbruddet påvirket nettleverandørens wifi-signal og utstyr. Utstyret til nettleverandøren tålte ikke strømbruddet og måtte byttes ut. Feilen som inntraff kort tid før innleveringsfristen viste seg å være av en så alvorlig karakter at det tok dager før den var rettet opp. I nevnte sak ble besvarelsen levert inn via e-post ett minutt etter innleveringsfristen.

Jeg mener at eksamenskontoret sin tolkning av force majeure og anvendelse av unntaksregelen på utdanningsrettens område i noen av sakene er for snever. Det er etter min mening lite hensiktsmessig å ha en unntaksregel, dersom unntaksregelen ikke kan komme til anvendelse i de situasjoner som helt klart ligger utenfor studentenes kontroll.

Jeg mener unntaksregelen må tilpasses offentlig forvaltning og studierelaterte forhold ved NHH. Vi lever i en digital tidsalder. Teknisk svikt grunnet strømbrudd og manglende internettforbindelse er særlige omstendigheter som må anses å ligge utenfor studentenes kontroll, med mindre det er forårsaket av studenten selv eller det på forhånd kunne vært avverget. Imidlertid mener jeg det er urimelig av NHH å forvente at studentene sikrer seg mot alle tenkelige tilfeller av teknisk svikt. Videre er det klart at NHH ikke kan stille krav om at studentene må sikre seg på måter som er i strid med gratisprinsippet, jf. uhl. § 7-1.

Jeg minner om at NHH og Klagenemda ved NHH kan omgjøre egne vedtak etter forvaltningsloven § 35, dersom vedtaket ikke er til skade for den det retter seg mot.

4.2 Lang saksbehandlingstid

Studentombudet mottok våren 2021 svært mange henvendelser fra studenter knyttet til lang saksbehandlingstid. Mange av studentene hadde ikke hørt noe i sin sak, til tross for at det var gått langt mer enn fire uker. Den 5. mai 2021 sendte jeg e-post til eksamenskontoret. I e-posten ble seksjon for eksamen gjort oppmerksom på de mange henvendelsene knyttet til brudd på forvaltningsloven § 11 a.

Lang saksbehandlingstid er i seg selv ikke i strid med forvaltningsloven, forutsatt at studenten får et foreløpig svar. NHHs saksbehandlere bør likevel være oppmerksomme på at lang behandlingstid kan få alvorlige konsekvenser for studentene.

Utgangspunktet er at NHH skal forberede og avgjøre saken uten ugrunnet opphold, jf. forvaltningsloven § 11 a. første avsnitt. Selv om det ikke er endelige frister for saksbehandlingen i forvaltningsloven, må saksbehandlingen og prioriteringen av sakene ivareta kravet om forsvarlig saksbehandling. Fristen for å sende foreløpig svar er fire uker etter at forvaltningsorganet har mottatt henvendelsen eller fra oppgitt frist for å gi tilsvar, jf. forvaltningsloven § 11 a. andre og tredje avsnitt.

Dersom NHH som forvaltningsorgan regner med at det vil ta uforholdsmessig lang tid før saker kan behandles og avgjøres, skal NHH snarest mulig gi studenten underretning om saksbehandlingstiden med angivelse av grunnen, og så langt det lar seg gjøre meddele når svar kan ventes i saken.

Som studentenes ombud var det oppløftende å bli underrettet i e-post datert 11. mai 2021 om at seksjon for eksamen ønsket å iverksette tiltak for å sikre rutiner om utsendelse av foreløpig svar.

Det er viktig at NHH har gode rutiner for å sikre at kravene i forvaltningsloven med tilhørende regelverk følges. Overholdelse av frister er viktig, særlig i lys av at NHH har en streng praksis i saker som knytter seg til studentenes fristoverskridelser. Gode rutiner og tydelig praksis skaper forutsigbarhet og gjensidig tillit. Tillit mellom studenter, ansatte og institusjonen er avgjørende for et godt læringsmiljø.

4.3 Tilrettelegging i undervisnings- og vurderingssituasjoner

Studentombudet har mottatt flere henvendelser fra studenter med funksjonsnedsettelser og særskilte behov som gjelder spørsmål og saker om tilrettelegging i studiesituasjonen, både i forbindelse med undervisning og vurdering.

Flere studenter sier de blir mer utmattet av å kjempe for tilrettelegging enn å la være. Fellesnevneren i disse sakene er at studentene ofte ikke føler seg likeverdige og mer som en byrde for institusjonen.

I den forbindelse er det viktig å presisere at det følger av universitets- og høyskoleloven § 4-3 femte avsnitt at studenter med «særskilte behov» har «rett til egnet individuell tilrettelegging av lærested, undervisning, læremidler og eksamen». Dette for å sikre likeverdige opplærings- og utdanningsmuligheter. Plikten til å legge til rette for studenter med særskilte behov må vurderes i lys av om tiltaket/tiltakene er å anse som «en uforholdsmessig byrde for utdanningsinstitusjonen». Terskelen for at et tilretteleggingstiltak anses som uforholdsmessig byrdefullt er svært høy.

I lovteksten fremheves det at i denne vurderingen skal legges særlig vekt på «tilretteleggingens effekt for å fjerne barrierer for disse studentene, kostnadene ved tilretteleggingen og institusjonens ressurser». Videre fremkommer det av samme bestemmelse at tilretteleggingen ikke må føre til en «reduksjon av de faglige krav» som stilles i utdanningen. Ordlyden i uhl. § 4-3 femte avsnitt tilsier at vurderingen må gjøres med utgangspunkt i den enkelte students situasjon. NHH må vurdere tilrettelegging ut fra et helhetsbilde, i samråd med studenten.

Studentombudet mener NHH i større grad må sikre at det gjøres gode individuelle vurderinger i søknader som gjelder tilrettelegging. Videre må det gis utfyllende og saklige begrunnelser ved avslag eller om annen form for tilrettelegging innvilges enn det søker ber om.

5. VEDLEGG

5.1 MANDAT FOR STUDENTOMBODET PÅ NHH

1. Studentombodet skal vera ein uavhengig bistandsperson for studentar på NHH som kan yta hjelp og gje råd i saker som gjeld studiesituasjonen.

2. Studentombodet skal nytta dei kanalar som til ei kvar tid høver seg best for å informera studentane om kva tenester som vert ytt. Vidare skal studentombodet gi opplæring til studenttillitsvalde om studentane sine rettar og plikter.

3. Studentombodet skal sjå til at sakene får ei forsvarleg og korrekt handsaming, og at studentane sine rettar vert ivaretekne. Vidare skal studentombodet bidra til å opplysa om prosess og at saka vert løyst på lågast mogleg nivå.

4. Studentombodet er uavhengig og kan ikkje instruerast. Prinsippet om uavhengigheit gjeld så langt dette er praktisk gjennomførleg. Studentombodet skal heller ikkje gjera vedtak i saker eller på annan måte instruera sakshandsamarar, utval etc. på NHH.

5. Studentombodet skal gjera ei konkret vurdering for kvar sak som kjem inn om det er andre etablerte organ på eller utanfor høgskulen som er meir nærliggjande at yter hjelp og råd.

6. Studentombodet er underlagt teieplikt eksternt og internt om alle tilhøve han/ho vert kjent med i kraft av sitt virke etter forvaltningslova § 13.

7. Studentombodet rapporterer årleg til rektor i form av årsrapport som også vert lagt fram for læringsmiljøutvalet (LMU) og som orienteringssak for styret. Rektor skal haldast løpande orientert om særleg alvorlege eller prinsipielt viktige saker. Studentombodet kan fremja saker for styret ved NHH i tråd med gjeldande prosedyre for styresaker.

8. Studentombodet har ikkje tilgang til Felles studentsystem (FS) og har berre innsyn i studentopplysningar eller dokumenta i ei sak så lenge studenten saka gjeld har gitt samtykke til innsyn.

9. Studentombodet skal rådgje studentane i studentsaker, men skal som utgangspunkt ikkje representera studenten. Der dette er naturleg kan studentombodet delta i møte etc. saman med studenten.

10. Studentombodet står fritt til, i samarbeid med den einskilde student, å tilpassa si tilnærming og arbeidsmåte til kvar einskild sak.

11. Studentombodet avgjer sjølv kva saker som skal prioriterast og om det er saker som ikkje er eigna til handsaming av studentombodet. Avslag på bistand skal grunngjevast og kan ikkje klagast på.

Vedteke av styret på NHH 18. april 2018

5.2 Kategorisering av henvendelser etter sakstype

Henvendelser blir plassert i én hovedkategori. Hver hovedkategori har underkategorier. Selv om en henvendelse ofte kan plasseres i flere kategorier, gjør Studentombudet en vurdering av hva som er hovedinnholdet i henvendelsen og plasserer den i en av følgende hovedkategorier; Læringsmiljø, Disiplinærsaker/skikkethet, Formelle forhold, Faglig aktivitet, Opptak / overgang / utveksling, Utenfor ordningen.

1. Læringsmiljø:

- Adferd/opptreden (ansatte, medstudenters eller andres adferd/opptreden)
- Fysisk læringsmiljø
- Tilrettelegging
- Sosialt/psykososialt læringsmiljø

2. Disiplinærsaker:

- Mistanke om fusk
- Fusk
- Saker om bortvisning/utestengelse

3. Formelle forhold:

- Progresjon/ permisjon
- Antall eksamensforsøk
- Semesterregistrering/ avgift
- Bekreftelser
- Vitnemål
- Personvern

- Åndsverk

4. Faglig aktivitet:

- Adgang
- Gjennomføring
- Eksamen
- Sensur/ vurdering
- Begrunnelse
- Veiledning: kvalitet/omfang
- Undervisning

5. Opptak/ overgang/ utveksling:

- Masteropptak
- Overgang til ny studieordning
- Utveksling
- Opprykk/ fritak fra/ innpassing av emner
- Andre opptak

6. Utenfor ordningen:

- Husleierett
- Arbeidsrett
- Samboer/ekteskapsrett
- Lånekassen
- Annet

Orienteringssak 4/22 - Vedlegg

NHH

MANDAT FOR STUDENTOMBODET PÅ NHH

Vedteke av styret på NHH 18. april 2018

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