TILSYNS-RAPPORT

Master of Science in Business Administration

Inland Norway University of Applied Sciences (Høyskolen i Innlandet)

2022



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Degree/ECTS	Master / 120 ECTS
Experts	Joachim Scholderer, Magnus Westerlund and Sondre Wold
Decision date	January 31, 2022
NOKUTs case number	21/08434



Introduction

The external quality assurance performed by NOKUT consists of a periodic supervision of the institutions' systematic work on assuring and enhancing the quality of the education they offer, accreditation of new provisions and revision of accredited provisions. Universities and university colleges have different self-accrediting powers. For an institution without selfaccrediting powers to establish a provision in a certain cycle an application must be made to NOKUT.

An expert committee appointed by NOKUT has evaluated the application from Inland Norway University of Applied Sciences for the accreditation of Master of Science in Business Administration and their assessments are found in this report.

The Master of Science in Business Administration at Inland Norway University of Applied does fulfil the conditions for accreditation in the Quality Assurance Regulation in Higher Education and the Ministerial Regulations concerning quality assurance and quality development in higher education and tertiary vocational education. The provision is accredited by the decision made January 31, 2022.

Øystein Lund
Director of the Department for Quality Assurance and Legal Affairs

Content

1 Information regarding the applicant institution	
2 Decision	5
3 Expert assessment	6
3.1 Summary	6
3.2 Basic prerequisites for accreditation	7
3.3 Demands to the educational provision	9
3.4 Academic environment	18
4 Conclusion	23
5 Documentation	23
Learning outcome of the programme	25
The accreditation process	
Presentation of the expert committee	28

1 Information regarding the applicant institution

Inland Norway University of Applied Sciences (INN) was established January 1st 2017 after a merger between Hedmark University of Applied Sciences and Lillehammer University College. INN has approximately 16 000 students and 1200 full-time equivalent employees divided on 6 different campuses in eastern Norway: Blæstad, Elverum, Evenstad, Hamar, Lillehammer and Rena.

INN provides bachelor's and master's level programmes in subject areas such as ecology and agricultural sciences, pedagogy, health sciences, social sciences, language and literature, biotechnology, film, animation and game sciences, economics, leadership and innovation. INN also offers five PhD programmes.

INN currently offers a master's programme in business administration with three majors/spesialisations:

- Major in Digital Leadership and Business Analytics
- Major in Performance Management
- Major in Marketing Management and Service

They now apply for a fourth major in Business Analytics. In addition, INN has made some substantial changes to the existing major in Digital Leadership and Business Analytics and the name of this major is changed to Digital Leadership and Business Development.

2 Decision

NOKUT made the following decision on January 31, 2022:

NOKUT considers that the criteria in the regulations are fulfilled. We therefore accredit the Master of Science in Business Administration (120 ECTS) at Inland Norway university of Applied Sciences. The study programme is a master degree programme, after section 3 in the master degree regulation. The accreditation is valid from this date.

The original decision in Norwegian:

Vilkårene i NOKUTs forskrift om tilsyn med utdanningskvaliteten i høyere utdanning av 9. februar 2017 studietilsynsforskriften) og i forskrift om kvalitetssikring og kvalitetsutvikling i høyere utdanning og fagskoleutdanning av 1. februar 2010 (studiekvalitetsforskriften) er oppfylt.

NOKUT akkrediterer *master i økonomi og ledelse* (120 studiepoeng) ved Høyskolen i Innlandet. Studiet er en mastergrad etter mastergradsforskriften § 3. Akkrediteringen er gyldig fra vedtaksdato.

3 Expert assessment

This chapter is the expert committee's assessment. The term "we" refers to the expert committee as such.

3.1 Summary

The application concerns a set of changes in the *Master of Science in Business*Administration programme (in Norwegian: "Master i økonomi og ledelse", qualifying for the use of the Norwegian supplementary title "siviløkonom") offered by the applicant institution. However, not all of these changes formally require new accreditation. There are minor changes in the content of study specialisations resulting from continuous development and quality improvement; the expert committee will not focus on these. The changes which do require accreditation concern two study specialisations within the master programme:

- Business Analytics. Business analytics is a new specialisation. It was the subject of a
 previous application in 2020, which was not approved (see NOKUT case no 20/08204).
 The present application implements the changes that the expert committee had
 suggested in that case and meets the requirements and criteria that were not fulfilled
 in the previous application.
- Digital Leadership and Business Development (in Norwegian: "Digital ledelse og
 forretningsutvikling"). Digital leadership and business development is a major
 repositioning of the institution's previous study specialisation, Digital leadership and
 business analytics (in Norwegian: "Digital ledelse og business analytics"), offered as a
 specialisation in the same master programme. The present application eliminates the
 business analytics elements from the previously offered specialisation and extends the
 strategy/entrepreneurship and leadership elements.

The assessment by the expert committee focused on these two specialisations if it is not specifically stated in the assessment that the assessment is in regard to the programme as a whole.

Overall, the committee is satisfied with the changes INN has made in the programme and the two specialisations and recommends accreditation.

3.2 Basic prerequisites for accreditation

3.2.1 Demands expressed in the Universities and College Act

Regulations on Quality Assurance in Higher Education

Section 3-1 (4) It is a condition for accreditation being granted that the requirements of the Universities and University Colleges Act are met. Regulations adopted under the authority of Section 3-2 of the Universities and University Colleges Act shall form the basis for the accreditation.

Academic Supervision Regulations

Section 2-1 (1) The requirements of the Act relating to Universities and University Colleges and its corresponding regulations must be met.

Assessment

Inland Norway University of Applied Sciences is an accredited state university college. Requirements related to the institution's regulations, quality assurance system, learning environment, and appeal board are not evaluated in the present assessment. The application is based on the regulation concerning master's degree requirements (mastergradsforskriften) § 3.

The Master of Science in Business Administration programme offered by the institution (awarding the supplementary title "siviløkonom"¹) comprises 120 ECTS, including a master's thesis of 30 ECTS. The current assessment concerns the proposed specialisations with provisional titles Business analytics and Digital leadership and business development which

The title "siviløkonom" is a master in *general* management. The UHR guidelines on the use of the supplementary title exclude fully specialised programmes. A programme awarding the supplementary title must satisfy the following requirements see (Universitets- og høgskolerådet (2018). *Vilkår for bruk av tilleggsbetegnelsen (sidetittelen) siviløkonom*. Oslo: UHR.):

- The programme must include coursework in research methods;
- The programme must include coursework in general business administration subjects (outside the specialisation area and excluding research methods) of at least 20 ECTS;
- The programme must include coursework in a specialisation area of at least 30 ECTS. The
 courses in the specialisation area must consist of interrelated subjects and must show
 progression;
- Elective subjects may not include more than 15 ECTS coursework outside the field of business administration;
- The programme must include independent work of 30 ECTS (i.e., a master's thesis) in the specialisation area.

¹ All specialisations offered under the applicant institution's *Master of Science in Business Administration* programme award the Norwegian supplementary title "siviløkonom" to their graduates. This is a specifically Norwegian supplementary title, defined by the Universities Norway chapter responsible for economics and business administration (UHR-Økonomi og administrasjon), often translated as "Master in Commerce/Business Studies".

the applicant institution wishes to offer within its existing programme, *Master of Science in Business Administration*.

The Master of Science in Business Administration offered by the institution targets applicants who have completed a Bachelor in Economics and Business Administration (with a minimum of 180 ECTS, passed with an average degree of C or better on the ECTS scale), including subjects in business analysis, administrative subjects, economics, methods and ethical practices. The admission requirements are not differentiated with respect to the specialisations offered in the programme. Furthermore, the admission requirements make no demands on the candidate's prior qualifications or experience with information technology.

The admission requirements are also in line with the UHR-ØA guidelines with respect of the supplementary title "siviløkonom".

The diploma and diploma supplement provide adequate and correct information.

Conclusion

Yes, the requirements are fulfilled.

3.2.2 Information about the programme

Academic Supervision Regulations

Section 2-1 (2) Information provided about the programme must be correct and show the programme's content, structure and progression, as well as opportunities for student exchanges.

Assessment

Programme structure and content of the two proposed specialisations are clearly described in the application documents. Both have the same umbrella structure:

- A 22.5-ECTS block of shared general business administration subjects (Management accounting and control, Strategy and leadership, Sustainable business model innovation).
- A 15-ECTS block of shared method subjects (Data management, Quantitative methods).
- A 22.5-ECTS block of specialisation subjects. In the *Business Analytics* specialisation, these include Applied programming, Business forecasting and Machine learning. In the *Digital Leadership and Business Development* specialisation, these include Marketing theory, Economic organisation theory, and Digitalisation, change and leadership.
- A 30-ECTS block of elective subjects, either taken at the applicant institution or at one
 of the partner institutions abroad if the student decides to go on exchange, including
 7.5 ECTS in the specialisation area.
- A 30-ECTS master's thesis.

The programme structure is fully consistent with the already existing specialisations which the applicant institution offers in its *Master of Science in Business Administration*. It is also

fully consistent with the UHR-ØA standards for awarding the Norwegian supplementary title "siviløkonom".

Both specialisations repeat certain subjects that are included in virtually all bachelor's curricula in the area of economics and business administration. This concerns the courses *Management accounting and control, Strategy and leadership* and *Quantitative methods*. The Committee advises the institution to review and, where appropriate, upgrade the content and learning outcomes of these courses so that they conform to the requirements for master's level courses (see *National qualification framework for lifelong learning*). Otherwise, the institution would risk awarding duplicate ECTS for learning outcomes for which applicants were already awarded ECTS in their bachelor programmes.

There are clear guidelines for when students can go on international exchange. The third semester is reserved for this. The programme structure is well adapted to it, defining all subjects in the third semester as electives. Students can choose among a long list of partner institutions (all exchange agreements are included in the application). Since there are no mandatory subjects defined for the third semester, the equivalence of the subject portfolio offered by the partner institutions is not a concern.

Conclusion

Yes, the requirements are fulfilled.

The institution is advised to

Review and, where appropriate, revise the content of the general business administration courses in the programme so that they better conform to the requirements of master's level courses and do not duplicate learning outcomes for which applicants were already awarded ECTS in their bachelor programmes.

3.3 Demands to the educational provision

3.3.1 Learning outcome and title of programme

Academic Supervision Regulations

Section 2-2 (1) The learning outcomes for the programme must be in accordance with the National Qualifications Framework for Lifelong Learning, and the programme must have an appropriate title.

Assessment

The main application document specifies the learning outcomes of the proposed new specialisation, integrated with the learning outcomes of the umbrella programme *Master of Science in Business Administration* under which the specialisation is intended to be offered. All learning outcome specifications satisfy the formal requirements set forth in the *National Qualifications Framework for Lifelong Learning*, and the proposed programme has an appropriate title that corresponds with the learning outcomes.

Furthermore, the subtitles of the two specialisations *Business Analytics* and *Digital Leadership and Business Development* sufficiently cover the content and learning outcome.

However, the committee finds it problematic that the first semester appears to include repetitions of bachelor subjects (Strategy and leadership, Management accounting). Virtually all bachelor programmes in business administration include these subjects, either under the same or closely related course titles. If students come from the institution's own bachelor programme in business and administration, BØADM, they will have encountered a lot of the same topics during undergraduate courses. Only 7,5 ECTS in course Strategy and leadership at postgraduate level seems insufficient in order to develop the students' knowledge and skills beyond what the bachelor level courses already have done (where for strategy has its own course with 7.5 ECTS).

Conclusion

Yes, the requirements are fulfilled.

The institution is advised to

 Review whether the shared courses (Strategy and leadership, Management accounting) have sufficient depth for master-level studies, and upgrade their content if necessary.

3.3.2 The programme's academic update and professional relevance

Academic Supervision Regulations

Section 2-2 (2) The programme must be academically up-to-date and have clear academic relevance for further studies and/or employment.

Assessment

In this section, the committee only considers the specialisations in *Business Analytics* and *Digital Leadership and Business Development* (in Norwegian: "Digital ledelse og forretningsutvikling").

Compared to the previous application (NOKUT case no 20/08204), the curriculum of the *Business Analytics* specialisation has received a significant workover. The applicant institution has improved the clarity for prospective students of the specialisation. In particular, the clarity is much appreciated in terms of understanding the job market. While the students are studying for a business degree, they should now get a much-improved grounding in analytics. Therefore, they are better prepared to communicate with professionals from technical and visual disciplines.

The *Digital Leadership and Business Development* specialisation offer a traditional and broad business administration curriculum that may attract a particular professional cadre. The lack of a deep knowledge-wise specialisation can be understood from a perspective of general management skills (see 3.3.1). While the demand for specialised knowledge in digital has increased, there is still also a demand for more grounded work in general and change management. The specialisation can be considered up-to-date in relation to both a perceived job market demand and academically wise.

Both specialisations should also qualify students for further (PhD) studies in economics and business administration, both at INN and other Norwegian universities.

Conclusion

Yes, the requirements are fulfilled.

3.3.3 The programme's workload

Academic Supervision Regulations

Section 2-2 (3) The total workload of the programme must be between 1,500 and 1,800 hours per year for full-time students.

Assessment

The study plan provides a satisfactory workload per academic period (1500-1800 hours). The workload outlined in the curriculum is divided between lectures, self-study, exercises, and assessments. The committee finds the programme's overall nominal workload to be fully satisfactory and in line with the relevant regulations.

Conclusion

Yes, the requirements are fulfilled.

3.3.4 The programme's content, structure and infrastructure

Academic Supervision Regulations

Section 2-2 (4) The programme's content, structure and infrastructure must be adapted to the programme's learning outcomes.

Assessment

The overall programme structure consists of

- A 22.5-ECTS block of shared general business administration subjects (Management accounting and control, Strategy and leadership, Sustainable business model innovation).
- A 15-ECTS block of shared method subjects (Data management, Quantitative methods).
- A 22.5-ECTS block of specialisation subjects. In the Business Analytics specialisation, these include Applied programming, Business forecasting and Machine learning. In the Digital Leadership and Business Development specialisation, these include Marketing theory, Economic organisation theory, and Digitalisation, change and leadership.
- A 30-ECTS block of elective subjects, either taken at the applicant institution or at
 one of the partner institutions abroad if the student decides to go on exchange,
 including 7.5 ECTS in the specialisation area.
- A 30-ECTS master's thesis.

In the first semester the students follow two mandatory shared subjects (Management accounting and control and Strategy and leadership) and two subjects within the major. The second semester contains three mandatory subjects within the major, and also method subjects. The third semester is reserved for student exchange and contains four elective subjects. The last semester is reserved for the master thesis. All subjects are 7.5 ECTS.

Students majoring in *Business Analytics* have the following mandatory subjects:

- Data engineering (Datahåndtering og analysedesign)
- Applied programming (Anvendt programmering)
- Management accounting and control (Økonomisk styring og kontrol)
- Machine learning (Maskinlæring)
- Business forecasting (Prognosemodeller for økonomi og finans)
- Quantitative method (Kvantitativ metode)

Students majoring in Digital Leadership and Business Development have the following mandatory subjects

- Strategy and leadership (Strategi og ledelse)
- Marketing theory (Markedsføringsteori)
- Data management strategy (Datastrategi)
- Digitalisation, change and leadership (Digitalisering, endring og ledelse)
- Sustainable business model innovation (Bærekraftig forretningsmodellinnovasjon)
- Econiomic theories of organisation (Økonomisk organisasjonsteori)
- Management accounting and control (Økonomisk styring og kontroll)

The institution has formulated the learning outcomes on the programme level, i.e. jointly for all specialisations offered under the *Master of Science in Business Administration*. Where these differ between specialisations, the learning outcomes are formulated conditionally. Application document B221(8) convincingly describes how the learning outcomes are addressed by the respective courses in the different specialisations, including the two new ones evaluated here. The committee considers the learning outcomes and links to course contents as generally adequate but would like to repeat its advice from above (see 3.2.3 and 3.3.1) that the institution should ensure that the general business administration courses Management accounting and control and Strategy and leadership really provide students with the "advanced knowledge" that is claimed in the formulation of learning outcome K1.

As also discussed under 3.2.2 (see above) and 3.3.8 (see below), there are clear guidelines for when students can go on international exchange. The third semester is reserved for this. The programme structure is well adapted to it, defining all subjects in the third semester as electives. Students can choose among a long list of partner institutions (all exchange agreements are included in the application). Since there are no mandatory subjects defined for the third semester, the equivalence of the subject portfolio offered by the partner institutions is not as such an issue.

Infrastructure

Neither of the proposed specialisations involves course subjects that would require access to specialised infrastructure beyond that which is usually required for a business administration specialisation. The physical library services and the electronic library services

(e-journals, e-books, databases) of the institution are excellent. Hence, the committee finds that the infrastructure currently provided by the applicant institutions is fully adequate for the proposed specialisations.

Conclusion

Yes, the requirements are fulfilled.

3.3.5 Teaching, learning and assessment methods

Academic Supervision Regulations

Section 2-2 (5) The teaching, learning and assessment methods must be adapted to the programme's learning outcomes. The programme must facilitate students taking an active role in the learning process.

Assessment

The mandatory courses and the suggested electives in the proposed specialisation use a variety of teaching, learning and assessment methods. They include traditional lectures, self-study, group assignments, software tutorials and case studies, combining classroom teaching and online course delivery as instructional settings. The committee considers this fully appropriate for a programme of this type.

Conclusion

Yes, the teaching, learning and assessment methods are adapted to the programme's learning outcomes.

3.3.6 Links to research and/or artistic development work and academic development work

Academic Supervision Regulations

Section 2-2 (6) The programme must have relevant links to research and academic development work and/or artistic research.

Assessment

The committee has reviewed and considered the submitted faculty list and the additional faculty supplement information. The committee's view is that the Faculty behind the *Master of Science in Business Administration* is considered as a whole to have a good research performance.

However, as we shall also discuss later (see Sections 3.4.1, 3.4.4 and 3.4.5, below), large parts of the programme are taught by part-time faculty members who do not perform the research listed on their CVs as part of their employment at the applicant institution, and by staff without research duties or research qualifications. In order to obtain a more realistic picture of the research conducted at the institution, the committee conducted a bibliometric analysis in Clarivate Web of Science.

The publication search in the Web of Science Core Collection (with at least one author from among the 24 faculty and staff members identified in application document B234(1) that

are involved with the specialisations *Business Analytics* or *Digital Leadership and Business Development*, and with at least one author with an Inland Norway University of Applied Sciences affiliation²), yielded a historical total of 115 publications. A breakdown of the search results in terms of the top-25 Web of Science subject categories is shown in Figure 1, a breakdown in terms of the top-25 research areas in Figure 2, and a breakdown in terms of the top-25 journals in Figure 3.

Note that none of these publications contained the terms "analytics", "digital" or "business development" in the title, abstract or keywords. Only six contained the term "leadership" in the title, abstract or keywords. The applicant institution clearly lacks a research record in business analytics, digitalisation and business development, and has only a very weak one in leadership. The committee sincerely hopes that the applicant institution will be able to develop its research activities in these areas, and that the faculty members newly hired (or about to be hired) can compensate for the institution's lack of experience. If not, the institution may not be able to show that its master education is research-based.

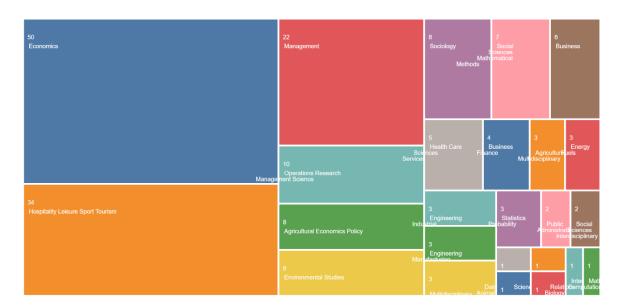


Figure 1. Web of Science-indexed publications by faculty and staff involved in the specialisations Business analytics or Digital leadership and business development, broken down by subject category

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² The query was: AU=([names of the 21 staff members affiliated with the spesialisations in Business Analytics and Digital Leadership and Business Development]) AND OG=(Inland Norway University of Applied Sciences)

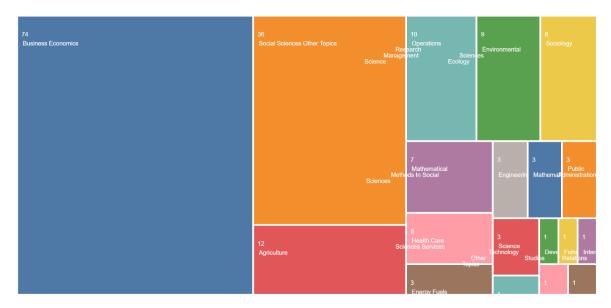


Figure 2. Web of Science-indexed publications by faculty and staff involved in the specialisations *Business analytics* or *Digital leadership and business development*, broken down by research area

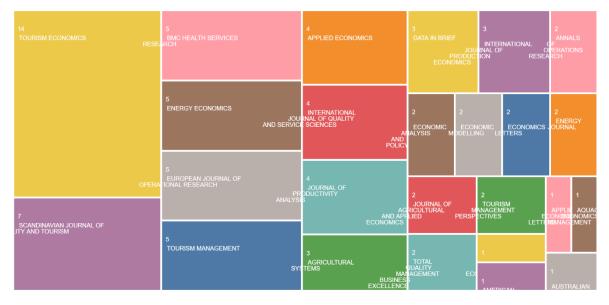


Figure 3. Web of Science-indexed publications by faculty and staff involved in the specialisations *Business analytics* or *Digital leadership and business development*, broken down by journal name

Regarding the two specialisations under consideration, the committee seeks a research focus on particular methods in respective fields. Given the information review, the committee cannot find clear roles of faculty members in analytics or digitalisation leading the research activities. The faculty lacks a clear focus on analytical methods, such as data wrangling and machine learning. To be sufficiently research oriented in a master's programme, demands a particular focus on methods research within that discipline.

The committee acknowledge that the Web of Science Core Collection is limited to certain high-impact publications. An organisation developing a new focus area may find it difficult to have an established record and to be included in such research publications. While the

Web of Science indexed publications offer a long-term aim for the applicant's research, particularly for a potential introduction of a PhD-level degree, it may take some time to build such records. Therefore, we consider the organisations research record as an institution and documented development ability, as evidence for that the organisation is likely to be able to alleviate our concerns in the mid-term as well. Creating faculty positions for the areas indicated above, which provide an environment for master students that is linked to research, should be considered high organisational priority.

Overall, the committee finds that the proposed curricula have sufficient links to relevant research and that current faculty can provide a sufficient pedagogical depth in the study subjects in short term. In the medium and long term, the applicant should strive to further develop competencies in each area of specialisation to ensure that the curricula and teaching activities in these areas are developed and remain current.

Conclusion

Yes, the requirements are fulfilled.

The institution is advised to

 Develop a plan to improve research activities in the respective specialisation fields and appoint research leaders who further develop methods and maintain a master programme specialisation with sufficient subject depth.

3.3.7 The programme's internationalisation arrangements

<u>Academic Supervision Regulations</u>

Section 2-2 (7) The programme must have internationalisation arrangements adapted to the programme's level, scope and other characteristics.

Assessment

The proposed specialisation in *Business analytics* will focus on recruiting students from an international environment and is, for the time being, planned to be taught completely in English; the institution will consider offering the specialisation also in Norwegian at a later point in time. The academic staff come from a diverse background and are involved in international research activities. Overall, we find the internationalisation arrangements sufficiently adapted to the programme.

As the institution has several arrangements with local businesses, their goal of giving international students insights into Norwegian businesses is fit. However, in the converse case, there is not much about how internationalisation arrangements will benefit domestic students. The application documents indicate that the applicant institution has an international arrangement with Karlstad University in Sweden. However, the committee finds the application lacking specificity in the section about international perspectives in the programme gained through the Karlstad collaboration. Furthermore, we also note that the enclosed agreement seems to expire this year.

Conclusion

Yes, the programme has internationalisation arrangements adapted to its level, scope, and other characteristics.

The institution is advised to

 Detail how the institution will ensure the existence of an international educational environment

3.3.8 The programme's arrangements for international student exchange

Academic Supervision Regulations

Section 2-2 (8) Programmes that lead to a degree must have arrangements for international student exchanges. The content of the exchange programme must be academically relevant.

Assessment

There are clear guidelines for when students can go on international exchange. The third semester is planned in a way that makes it possible for students to go abroad. The programme structure is well adapted to it, defining all subjects in the third semester as electives.

The institution has provided an extensive list of exchange agreements. Some of these are long-lasting exchange agreements with institutions abroad, of which many seem relevant for the proposed specialisation in business analytics. Many of them provide a master programme in the field themselves, and students will therefore be able to take the relevant and necessary courses during their exchange period.

The committee notes that the exchange agreement with the University of Bordeaux seems to expire this year.

Conclusion

Yes, the programme has arrangements for international student exchange.

The institution is advised to

Assess and renew arrangements that may have or is about to expire.

3.3.9 Supervised professional training

Academic Supervision Regulations

Section 2-2 (9) Programmes that include supervised professional training must have formal agreements between the institution and the host for the supervised professional training.

Assessment

Not relevant

3.3.10 The programme's defined limitations and academic breadth

Regulations on Quality Assurance in Higher Education

Section 3-2 (1) Master's degree programmes shall be defined, delimited and have sufficient academic breadth.

Assessment

In application document B224(2): Forståelse av hovedprofilområde, og beskrivelse av obligatoriske- og valgemner til de ulike profilene, the institution describes in detail how it interprets the subject areas of the different specialisations in its Master of Science in Business Administration—including the two new specialisations Business Analytics and Digital Leadership and Business Development—and how the subject areas relate to the composition of the respective curricula.

The committee agrees with the institution's interpretations of the subject areas of the two new specialisations. Since they are mere specialisations in a master's programme in *general* business administration (see Section 3.2.2), as opposed to specialised master's degrees in the respective subject areas, the committee sees no risk of the programme becoming too narrow.

Conclusion

Yes, the requirements are fulfilled.

3.4 Academic environment

3.4.1 The academic environment's composition, size and competence

Academic Supervision Regulations

Section 2-3 (1) The academic environment for each programme must be of a size proportionate to the number of students and the programme's characteristics, be stable over time in terms of competence and have a composition that covers the programme's topics and subjects.

Regulations on Quality Assurance in Higher Education

Section 3-2 (2) Master's degree programmes shall have a broad, stable academic environment comprising a sufficient number of staff with high academic expertise in education, research or artistic research and academic development work within the field of study. The academic environment shall cover the subjects and courses that the study programme comprises. Staff members in the academic environment in question must have relevant expertise.

Assessment

Due to the changes in the staff composistion at the applicant institution and planed recruitements, NOKUT requested an updated overview table plus CVs for newly hired faculty and staff from the institution. The institution provided this information on 26 November 2021. The committee would like to note though that the overview table provided in application document B234(1) contained many errors (including typos in the

names of employees, incorrect job titles and incorrect information about employment contracts).

Overall, the size and competencies of the academic environment affiliated with the programme is sufficient. However, as discussed previously in Section 3.3.6, the committee cannot find clear Professorial roles in analytics or digitalisation leading the research activities. The faculty thus lacks a clear focus on analytical methods, such as data wrangling and machine learning. To be sufficiently research oriented in a master's programme, demands a particular focus on methods research within that discipline. Creating Proffessorial positions for the areas evaluated above, which provide an environment for master students that is linked to research, should be considered a high organisational priority.

Conclusion

Yes, the requirements are fulfilled.

The institution is advised to

 Develop a plan to improve research activities in the respective specialisation fields and appoint research leaders who further develop methods and maintain a master programme specialisation with sufficient subject depth.

3.4.2 The academic environment's educational competence

Academic Supervision Regulations

Section 2-3 (2) The academic environment must have relevant educational competence.

Assessment

The applicant institution's guidelines for required qualifications of faculty members specify that all faculty members must have or must acquire within their two first years of employment, competences in higher education didactics of at least 15 ECTS. The applicant institution has reported that a majority of the employees who are part of the core group for the programme have the required formal competences. The committee considers this as a sufficient indication that the academic environment tasked with the delivery of the proposed specialisation has sufficient pedagogical competence and is actively maintaining it.

Conclusion

Yes, the requirements are fulfilled.

3.4.3 Academic leadership

Academic Supervision Regulations

Section 2-3 (3) The programme must have a clear academic leadership with defined responsibilities for quality assurance and the development of the study programme.

Assessment

The main application document describes a strict hierarchical line management structure: vice-chancellor for education, vice-dean for education, programme manager, specialisation manager, cohort manager. A single person is responsible for all academic, pedagogical, and operational issues on each of these levels, including quality assurance. The application documents contain no further information regarding how and for how long these persons are appointed, which specific persons are currently appointed, and which persons are foreseen to be appointed to the roles specific to the proposed new specialisation. The application document does not mention any collegial organs or other committees and no formal student body representation.

The committee acknowledges that this approach to educational governance exists and that, on a formal level, academic leadership and responsibility for quality assurance and programme development are clearly assigned. However, it is more typical to find such strictly hierarchical line management structures in small, private for-profit institutions. Other higher education institutions have had good experiences with a more collegial and inclusive approach that involves strong formal representation of students and prospective employers. This can foster continuous academic and pedagogical development and ensure that the learning outcomes of an institution's programmes match the qualification requirements in the labour markets for its graduates.

Conclusion

Yes, the programme has an academic leadership with a defined responsibility for quality assurance and the development of the programme.

The institution is advised to

• Consider more collegial and inclusive approaches to educational governance that involve formal representation of students and prospective employers.

3.4.4 Staff with primary employment

Academic Supervision Regulations

Section 2-3 (4) At least 50 per cent of the academic full-time equivalents affiliated to the programme must be staff with their primary employment at the institution. Of these, academic staff with at least associate professor qualifications must be represented among those who teach the core elements of the programme. In addition, the following requirements apply to the academic environment's level of competence:

- a) For first-cycle programmes, at least 20 per cent of the members of the academic environment must have at least associate professor qualifications.
- b) For second-cycle programmes, at least 50 per cent of the members of the academic environment must have at least associate professor qualifications. Within this 50 per cent, at least 10 per cent must have professor or docent qualifications.
- c) For third-cycle programmes, the academic environment must consist of academic staff with at least associate professor qualifications. At least 50 per cent must have professor qualifications.

Assessment

Since NOKUT's quantitative requirements regarding primary employment and qualification levels refer to whole study programmes (as opposed to specialisations within study programmes), the Committee will assess the academic environment related to the institution's *Master of Science in Business Administration* as a whole in this section.

The overview table in application document B234(1) lists altogether 56 employees and positions which are at least partly involved in teaching, research, or other duties related to the institution's *Master of Science in Business Administration*. However, four of these positions are unfilled. Furthermore, two names were listed in the overview table who do not appear anywhere on the institution's website. Excluding these, there were 50 employees left which the committee could evaluate.

Of the 50 employees assessed as members of the relevant academic environment, 28 have their main employment at the applicant institution (56 %). 36 have at least associate professor qualification (72 %), i.e. their job titles are *professor*, *professor* II, *førsteamanuensis*, *førsteamanuensis* II, dosent or *førstelektor*. Among these, 16 have professor or docent qualifications (32 %). Hence, all quantitative requirements for master's programmes regarding primary employment and qualification levels are fulfilled. Furthermore, staff with at least associate professor qualifications covers the core elements (common courses) of the programme.

As discussed previously in Section 3.3.6 and 3.4.1, the committee cannot find clear Professorial roles in analytics or digitalisation leading the research activities. The faculty lacks a clear focus on analytical methods, such as data wrangling and machine learning. To be sufficiently research oriented in a master's programme, demands a particular focus on methods research within that discipline. Creating Proffessorial positions for the areas evaluated above, which provide an environment for master students that is linked to research, should be considered high organisational priority.

Conclusion

Yes, the requirements are fulfilled.

The institution is advised to

 Develop a plan to improve research activities in the respective specialisation fields and appoint research leaders who further develop methods and maintain a master programme specialisation with sufficient subject depth.

3.4.5 The academic environment's research and/or artistic research and academic development work

Academic Supervision Regulations

Section 2-3 (5) The academic environment must be actively engaged in research and academic development work and/or artistic research, and be able to demonstrate documented results with a satisfactory quality and scope in relation to the programme's content and level.

Regulations on Quality Assurance in Higher Education

Section 3-2 (3) The academic environment must be able to demonstrate documented results at a high level, and results from collaborations with other academic environments, nationally and internationally. The institution's assessments shall be documented so that NOKUT can use them in its work.

Assessment

The applicant has introduced some changes in the academic environment since the last evaluation. Most of the faculty members planned to participate in the teaching and supervision of Master's theses are active researchers who regularly publish in international scientific publications. As already discussed and described in sections 3.3.6, 3.4.1 and 3.4.4, the Faculty has not been focused on research in the specialisations currently under consideration. Although the faculty conducts productive research in the general area of business administration, there is a remaining need for development in the areas of analytics, digtalisation, and leadership. Since these subjects are offered as specialisations, the committee finds that the proposed curricula is currently up to date and that current faculty can provide a sufficient pedagogical depth in the study subjects short term. In the medium and long term, the applicant should strive to develop competencies in each area of specialisation to ensure that the curricula and teaching activities in these areas are developed and remain current. Overall we find the academic environment meets the criteria, but we recommend that the institusion to develop a plan to improve research activities in the respective specialisation fields and to appoint research leaders that further develop methods that are relevant for the respective master programmes.

Conclusion

Yes, the requirements are fulfilled.

The institution is advised to

 To develop a plan to improve research activities in the respective specialisation fields and to appoint research leaders that further develop methods that are relevant for the respective master programmes.

3.4.6 The academic environment's external participation

Academic Supervision Regulations

Section 2-3 (6) The academic environment for programmes that lead to a degree must actively participate in national and international partnerships and networks that are relevant for the programme.

Assessment

The institution has enclosed several letters of support from companies in the Lillehammer region. This shows that the institution has developed a well-functioning local network of potential employers in the region. The support from the companies includes supervision on thesis projects, guest lectures and cooperation on research tasks where relevant, both with master students and staff.

The institution is involved in multiple ongoing external projects relevant to the field of business analytics and has enclosed a list of programmes where an application process is either ongoing or is scheduled to start next year. Whether this will also be relevant for

international graduates remains to be seen. We would advise the institution to consider setting up a "cultural support programme" that could help international incoming students during their studies and also after their graduation

Conclusion

Yes, the requirements are fulfilled.

The institution is advised to

• Consider setting up a "cultural support programme" that could help international incoming students during their studies and also after their graduation.

3.4.7 Supervision of professional training

Academic Supervision Regulations

Section 2-3 (7) For programmes involving mandatory supervised professional training, the members of the academic environment must have relevant and updated knowledge from the field of the professional training. The institution must ensure that professional training supervisors have relevant competence and experience in the field of the professional training.

Assessment

Not relevant

4 Conclusion

Based on the written application and the attached documentation, the expert committee concludes the following:

The committee recommends accreditation of the Master of Science in Business Administration at Inland Norway University of Applied Sciences (Høgskolen i Innlandet).

5 Documentation

21/08434-1 HØGSKOLEN I INNLANDET - søknad om akkreditering av master i Master i økonomi og ledelse (siviløkonom)21/08434-2 HØGSKOLEN I INNLANDET - Institusjonsprofil

21/08434-2 HØGSKOLEN I INNLANDET – Institusjonsprofil

21/08434-10 Redegjørelse fra fagmiljøet på endringene i tidligere godkjente spesialiseringer ved master i økonomi og ledelse ved HINN

21/08434-15 Supplering av søknad om akkreditering av master i økonomi og ledelse (siviløkonom) - ved HINN

Appendix

Learning outcome of the programme

The learning outcome as it is presented in the application (in Norwegian)

Kunnskap

Kandidaten

- har avansert kunnskap om strategisk ledelse og økonomisk styring og kan kombinere denne kunnskapen for å oppnå å bedre forståelse for virksomheters verdiskaping (K1)
- har spesialisert innsikt i virksomheters verdiskaping gjennom enten i) inngående kunnskap om hvordan data, analyse og informasjonsteknologi kan understøtte beslutningsprosesser og ledelse av virksomheten, ii) inngående kunnskap om hvordan digitalisering kan styrke virksomhetens strategi og forretningsutvikling, iii) inngående kunnskap om hvordan markedsrelasjoner etableres og vedlikeholdes for å oppnå ønskede strategiske posisjoner, eller iv) inngående kunnskap om hvordan virksomheten kan måles, analyseres og styres i tråd med gjeldende strategi (K2)
- har inngående kunnskap om vitenskapelige teorier, forskningsprosesser og metoder tilpasset problemstillinger innenfor enten i) business analytics, ii)
 digital ledelse og forretningsutvikling, ii) markedsføringsledelse, eller v)
 økonomistyring (K3)
- kan analysere virksomheters taktiske og strategiske utfordringer med utgangspunkt i ulike tradisjoner innenfor økonomi- og ledelsesfag og profilområdets egenart, samt kombinere kunnskap innenfor økonomi- og ledelsesfag på nye måter for å løse utfordringene (K4)

Ferdigheter

Kandidaten

- kan analysere og forholde seg kritisk til ulike informasjonskilder, samt analysere empiri for å strukturere og formulere faglige resonnementer med mål om langsiktig strategisk posisjonering og effektiv styring og kontroll (F1)
- kan analysere og forholde seg kritisk til eksisterende teorier, metoder og fortolkninger innenfor strategisk ledelse og økonomistyring, samt anvende dette i praktisk og teoretisk problemløsning knyttet til enten i) data og analysekapasitet, ii) digitale forretningsmessige utfordringer, iii) markedsrelasjoner og strategiske posisjoner eller iv) økonomisk styring og kontroll (F2)
- kan bruke relevante forskningsbaserte metoder for å analysere virksomheters taktiske og strategiske utfordringer, utforme beslutningsgrunnlag og legge til rette for virksomheters verdiskaping gjennom å utvikle dataanalyser, strategier, styringssystemer, markedsrelasjoner og nye forretningsmuligheter (F3)
- kan relatere problemstilling, kontekst og data til metodevalg og gjennomføre et selvstendig, avgrenset forsknings- eller utviklingsprosjekt under veiledning og i tråd med gjeldende forskningsetiske normer innenfor enten i) business analytics, ii) digital ledelse og forretningsutvikling, iii) markedsføringsledelse, iv) eller økonomistyring (F4)

Generell kompetanse

Kandidaten

- kan analysere relevante profesjons- og forskningsetiske problemstillinger innenfor økonomi- og ledelsesfag, samt forholde seg profesjonelt til etiske problemstillinger knyttet til virksomheters strategiske og taktiske valg (G1)
- kan anvende sine kunnskaper og ferdigheter i utøvelse av ledelse og gjennomføring av prosjekter, samt i utredninger og analyser av virksomheters verdiskapende prosesser - alene og i fellesskap med andre (G2)
- kan formidle omfattende selvstendig forsknings- og utredningsarbeid både muntlig og skriftlig (G3)
- kan kommunisere om faglige problemstillinger, analyser og konklusjoner innenfor økonomi og ledelse med virksomheters interessenter og med allmennheten og ha forutsetninger for å arbeide i en internasjonal kontekst (G4)
- kan ivareta muligheter som ligger i virksomhetens verdiskaping gjennom data og teknologisk utvikling, tilrettelegging av endringsprosesser og fremme innovasjon (G5)

The accreditation process

NOKUT makes an administrative assessment to ensure that the application and documentation is suitable for external expert review. For applications that have been approved administratively, NOKUT appoints external experts for the evaluation of the application. The external experts have declared that they are legally competent to perform an independent evaluation, and carry out their assignment in accordance with the mandate for expert assessment passed by NOKUT's board, and in accordance with the requirements for educational quality as determined by the Academic Supervision Regulations and Regulations on Quality Assurance in Higher Education. The institution is given the opportunity to comment on the committee's composition.

NOKUT is responsible for the training and guidance of the experts during the entire process. Based on the documentation the expert committee writes their assessment. The expert committee conclude either with a yes or no, as to whether the quality of the educational provision complies with the requirements the Academic Supervision Regulations and Regulations on Quality Assurance in Higher Education. NOKUT also requests that the expert committee advise on further improvements of the programme. All criteria must be satisfactorily met before NOKUT accredits a programme.

If the expert committee recommends accreditation of the programme, the report is sent to the applicant institution, which is then given one week to comment on factual errors. If the committee do not recommend accreditation of the programme, the applicant institution is given three weeks to comment and make smaller adjustments to the programme. The committee receives the institutions comments and submits a revised assessment. The Director of Quality Assurance and Legal Affairs then reaches a final decision about accreditation.

Presentation of the expert committee

The Academic Supervision regulations section 5-6 determine the expert committe requirements for accreditation of study programmes at the bachelor's and master's level.

Professor Joachim Scholderer, Norwegian University of Life Sciences (NMBU) Joachim Scholderer is Professor of Innovation Management at NMBU, where he is responsible for the Business Analytics specialisations in the Master programmes in Data Science and Business Administration, and for the Digital Business Transformation specialisation in the Master in Entrepreneurship and Innovation. He holds an additional position at the University of Zurich, Switzerland (Department of Informatics). Previously, he was Research Director at the University of Zurich, Professor of Quantitative Methods at Aarhus University (Department of Economics), Professor of Marketing Research at Aarhus University (Department of Business Administration) and Assistant Professor of Marketing Research at Aarhus School of Business (Department of Marketing and Statistics). In addition, he has held part-time positions at the University of Basel (Statistics), University of Copenhagen (Sensory Science) and University of Tromsø (Economics). Joachim has published 81 peerreviewed journal papers, 5 books, 30 book chapters and over 200 conference contributions. His h-index is 44. In 2005, he received the Danish Business Research Award (Tietgen Prize) for his work.

Principal Lecturer Magnus Westerlund, Arcada University of Applied Sciences, Finland Magnus Westerlund (DSc), is a principal lecturer in information technology. He is the programme director of the master's degree programme in big data analytics and deputy head of the Business and Analytics department at Arcada University of Applied Sciences in Helsinki, Finland. He has a background from the private sector in telecom and information management and earned his doctoral degree in information systems at Åbo Akademi University. Magnus has research publications in the fields of analytics, IT-security, cyber regulation, and blockchain technology. His current research topics are found in the decentralized platform area of distributed applications, and the application of intelligent and secure autonomous systems.

Student Sondre Wold, University of Oslo Wold finished his B.Sc. in informatics at the Norwegian university of science and technology (NTNU) in the Spring 2019 and is now a master's student in informatics at the University of Oslo, where he also works as a group teacher. He has previously worked at NTNU as a Research assistant at Excited SFU, where he mainly assisted with the teaching of first-year subjects, but also contributed and coauthored a study about working life relevance in the computer science programmes at the Department of Computer Science.

