

Saxion

Master Facility and Real Estate Management

Limited study programme assessment

117A2022.01

Summary

In November 2022 the Master programme Facility and Real Estate Management was assessed by an audit panel from NQA. The fulltime and part-time 60 EC programme is taught in English at the main location of Saxion in Deventer. The audit panel assesses the quality of the study programme as **positive**.

The panel met with a master programme with a solid and clear programme. The Master FREM was developed by a consortium of four Dutch Universities of Applied Sciences in the 1990's. In 2010, it changed into a double degree with an integrated Facility and Real Estate Management degree in the Netherlands and a MSc degrees at the University of Greenwich, UK. The outline of the programme fits the needs and demands of the working field. The strength of the programme is the multidisciplinary focus on facility, real estate and asset management, combined with academic skills. The panel sees the master actively connecting with the outside world and adapting to changes in the market by adjusting its curriculum the following academic year. The panel encourages the programme to pursue this and further strengthen the integrated and international character of the curriculum. Further opportunities for the master lie in a stronger substantive cooperation with the University of Greenwich and in strengthening the financial and asset management component. The panel stimulates the study programme to take a next step with regard to the thesis, in making the product itself more applied and integrating the three subdomains while maintaining the academic standard. In view of the enthusiasm and expertise present among management, teachers, students, the Examination Board and the professional and academic field, the panel is confident that the development that has been initiated will be continued well and that the programme will succeed in growing further in the future and expanding its brand awareness and relevance.

Standard 1: Intended Learning Outcomes

The study programme **meets** the generic quality requirements for Standard 1.

The study programme is aimed at educating professionals at master level with knowledge of the three domains Facility, Real Estate and Asset Management. The Master FREM programme is built around four professional competences and one master's competence. This set of five competences is operationalised in learning outcomes per competence and per module. The competences are connected to the Dublin descriptors and in line with the Dutch Bachelor standards for Facility Management. The panel is positive about the regular review of the competences and learning outcomes with a broad range of internal and external stakeholders.

Standard 2: Teaching-Learning Environment

The study programme **meets** the generic quality requirements for Standard 2.

The curriculum of the programme is in line with the didactic concept and matches master level. The study programme enables students to achieve the intended learning outcomes. The curriculum is well linked to the outside world, however the international orientation can be further stressed within the modules. The level of training in research skills is very thorough. The panel notes that the present curriculum is somewhat delineated and approves of the intended more integrated approach in the new curriculum. Student mentoring is good, with special attention to limiting study delay for foreign students. Students are very pleased with the short lines and the personal approach, which benefits good mentoring. The study programme has a diverse,

dedicated, highly-qualified and enterprising team of lecturers. Students are positive about the accessibility, engagement and expertise of their lecturers.

Standard 3: Student Assessment

The study programme **meets** the generic quality requirements for Standard 3.

Assessment is in line with the Saxion vision and policy on assessment. The study programme uses various forms of assessment which match the didactic concept. According to the panel the programme's assessment structure is clear and insightful for students. All tests are individual which the panel finds suitable for a master's programme. The panel recommends to make formative testing a more formal part of the assessment policy, as well as a more holistic approach to testing. This fits in well with a more integrative curriculum and will also help reduce workload for lecturers and students. The panel establishes that the Examination Board is actively involved and addresses relevant points of improvement. From the conversations with representatives of the study programme it became clear that points of improvement are recognised and acted upon.

Standard 4: Achieved Learning Outcomes

The study programme **meets** the generic quality requirements for Standard 4.

Students demonstrate they master the competences at the final level with a presentation and thesis. The panel notices the thesis shows students' thorough knowledge of methodological research and the presentation gives students the opportunity to further sharpen their research topic and reflect on their learning process. Students and alumni the panel spoke with were very positive about this construction. The panel considers the level of the final works they have studied sufficient for a master programme. The panel stimulates the study programme to take a next step with regard to the thesis, in making the product itself more applied while maintaining the academic standard. Furthermore, the interdisciplinary approach, one of the programme's main aims, could be more present in the theses.

Contents

SUMMARY	3
INTRODUCTION.....	6
CHARACTERISTIC FEATURES OF THE STUDY PROGRAMME.....	8
BASIC DATA OF THE STUDY PROGRAMME	9
RETROSPECTIVE OF THE PREVIOUS ACCREDITATION	9
STANDARD 1 INTENDED LEARNING OUTCOMES.....	10
STANDARD 2 TEACHING-LEARNING ENVIRONMENT	13
STANDARD 3 STUDENT ASSESSMENT	19
STANDARD 4 ACHIEVED LEARNING OUTCOMES	23
FINAL CONCLUSION.....	25
RECOMMENDATIONS.....	26
APPENDICES	27
APPENDIX 1: PROGRAMME OF THE SITE VISIT	28
APPENDIX 2: DOCUMENTS EXAMINED	29
APPENDIX 3: LEARNING OUTCOMES PER COMPETENCE	30

Introduction

This is the assessment report of the Master Facility and Real Estate Management offered by Saxion University of Applied Sciences. The assessment was conducted by an audit panel compiled by Netherlands Quality Agency (NQA) commissioned by Saxion University of Applied Sciences. Prior to the assessment process, the audit panel had been approved by NVAO.

In this report NQA gives account of its findings, considerations and conclusions. The assessment was undertaken according to the *Assessment Framework for the Higher Education Accreditation System of the Netherlands* of NVAO (September 2018) and the *NQA Guideline 2019 for Limited Programme Assessment*.

The assessment took place on the 16th of November 2022.

The audit panel consisted of:

P.C. (Pieter) le Roux PD.Eng (chair/ domain expert);
G.L. (Geoff) de Booij MSc (domain expert);
O.G. (Olga) van Diermen (domain expert);
R. (Ries) Van den Hurk MSc (student member).

P.R. (Patricia) Molegraaf MSc, NQA auditor, acted as secretary of the panel.

The master programme Facility and Real Estate Management is part of the audit cluster HBO Facility and Real Estate.

Method of working of the panel and process

For the assessment, the study programme offered a critical reflection with appendices. For the assessment of the achieved learning outcomes, the panel has studied fifteen graduate products of graduates who recently finished their studies. These fifteen graduate products have been selected from the list of alumni of the last two academic years. In this selection, the variety in grading and variants have been taken into account.

To prepare for the visit the panel held a preliminary meeting. In the preliminary meeting the panel members have been instructed about NQA's method of working and about the *NVAO-Assessment Framework*. In this meeting the panel members also discussed their tentative findings. During both the preliminary meeting and during the audit, the panel members shared their findings with each other continuously. During the audit the panel spoke with various stakeholders of the study programme, such as students, lecturers (assessors) and representatives of the work field and it studied several documents, see appendices 1 and 2. At the end of the assessment day the panel incorporated all the information it had obtained in an overall picture and in a tentative substantiated assessment. In the final oral feedback session the panel chairperson communicated the conclusive assessment and the major findings of the panel. Staff members and students of the study programme have had the opportunity to approach the panel in confidence to bring to the attention of the panel those matters they deem of importance for the assessment. No use was made of this possibility.

After the assessment day a draft report was formulated, which was presented to the panel. On the basis of the panel's input a second draft was made, which was presented to the study

programme for a check on factual inaccuracies. The panel members have taken note of the reaction of the study programme and if necessary, adapted the report. Subsequently, the report was established as definitive. With all information provided (orally and in writing) the panel has been able to make a deliberate judgement.

The audit panel declares that the assessment of the study programme has been carried out independently.

Utrecht, February 23, 2021

Panel chairman

A handwritten signature in black ink, appearing to be 'P.C. le Roux', written in a cursive style.

P.C. (Pjeter) le Roux PD,Eng

Panel secretary

A handwritten signature in black ink, appearing to be 'P.R. Molegraaf', written in a cursive style.

P.R. (Patricia) Molegraaf MSc

Characteristic Features of the Study Programme

The Master Facility and Real Estate Management (FREM) offers a 60 EC master programme with a duration of 12 (full-time) or 24 (part-time) months, offered by Saxion University of Applied Sciences in Deventer. The programme had an intake of 35 students in 2021-2022 of which 23 were full-time and 12 part-time students. From 2014, the intake varies between 42 and 17 per year.

The Master FREM was developed by a consortium of four Dutch Universities of Applied Sciences in the 1990's. In an association with the University of Greenwich in London (UK) the consortium offered two MSc programmes: a Msc Facility Management (since 1995) and a Msc Real Estate Management (1999). After the programme had obtained an accreditation by NVAO in 2010, it changed into a double degree with an integrated Facility and Real Estate Management degree in the Netherlands and the existing MSc degrees in the UK. Since 2012 the five universities are no longer joined in a consortium. Two universities continued their FREM programme; Zuyd UAS and Saxion UAS now offer the programme independently, both as a double degree programme with the University of Greenwich¹. In 2014 Saxion, Zuyd and the University of Greenwich decided to redevelop the programme entirely. As part of this redevelopment, all students are now awarded an integrated MSc Facility and Real Estate Management at the University of Greenwich, similar to the already awarded Dutch MSc degree at Saxion and Zuyd.

Within the organisation of Saxion University of Applied Sciences the programme resides under the Hospitality Business School (HBS), together with the bachelor study programmes Facility Management, Hotel Management, Tourism Management and Interior Design and Styling. Other Master programmes within HBS are a Master in Business Administration and a Master of Arts in Management.

The programme consists of three terms of 14 weeks in the full-time programme and six terms of 14 weeks in the part-time programme. The general schedule is visualised in Figure 1 below. The final term in the full-time programme and the final two terms in the part-time programme are used to work on the master thesis.

¹ The degree offered by the University of Greenwich is not assessed here because it is not a joint degree, Saxion students only follow courses of the Saxion programme itself.

Full-time programme		
Term 1	Term 2	Term 3
September-December	January-March	April-August
Strategic Facility Management	Strategic Business Management	Thesis
Strategic Asset Management	Strategic Building Management	
Academic Skills		
Part-time programme		
Term 1	Term 2	Term 3
September-December	January-March	April-August
Strategic Building Management*	Strategic Asset Management	Strategic Business Management**
Academic Skills		
Term 4	Term 5	Term 6
Strategic Facility Management*	Thesis	
Academic Skills (continued)		

Figure 1: General schedule of the programme.

Basic Data of the Study Programme

Name study programme as in CROHO	Master Facility and Real Estate Management
Orientation and level study programme	hbo; master
Grade	Master of Science
Number of study credits	60 EC
Location	Deventer
Varieties	Full-time and part-time
Language used	English
Registration number in CROHO	70144

Retrospective of the Previous Accreditation

During the last external audit, in 2017, the full-time and part-time programme were assessed with a 'good' in the Dutch accreditation system. On the basis of the outcomes of the previous accreditation FREM has focused on the following improvements:

- Broadening the context of the programme by including real life business contexts as well. Subsequently, in 2019, competences were reformulated to increase comprehensibility and clarify delineation amongst them.
- Creating a stronger relationship between the FREM study programme and research programmes within Saxion/HBS. The past years FREM established more steady connections with Saxion lectorates and installed an Academic Council to provide feedback on the programme's vision on research.
- Adjusting some aspects of assessments such as aligning a specific assessment form and improving test procedures.

According to the panel, these improvements show that the programme has actively followed up the main suggestions of the previous accreditation panel with the above improvements. For further elaboration, see the chapters on the four standards of the NVAO-assessment framework.

Standard 1 Intended Learning Outcomes

The intended learning outcomes tie in with the level and orientation of the programme; they are geared to the expectations of the professional field, the discipline and international requirements.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the master Facility and Real Estate Management study programme **meets** the generic quality requirements for Standard 1.

The Master FREM programme is built around four professional competences and one master's competence. This set of five competences is formulated in a generic way and operationalised in learning outcomes per competence and module. The competences are connected to the Dublin descriptors and in line with the Dutch Bachelor standards for Facility Management. The panel is positive about the regular review of the competences and learning outcomes with a broad range of internal and external stakeholders. The programme's strength – also according to the advisory board – is the multidisciplinary focus on facility, real estate and asset management, combined with academic skills. The panel acknowledges the added value of this integrated programme and encourages the master to further integrate these three domains within the curriculum. Other opportunities for the master are a stronger substantive cooperation with the University of Greenwich and strengthening the asset management component.

Substantiation

Professional orientation and distinctive features

The aim of the Master FREM is to develop its students towards strategic management positions in the field of facility and real estate management, in profit and not-for-profit organisations. The main focus of the programme is on the management of properties that are not part of the core business but are seen as operational resources or fixed assets to accomplish core business goals. (Education and Assessment Policy FREM 2021-2022).

Its unique selling points are, according to the programme, its focus on the integration of facility management, real estate management and asset management and the co-operation with the University of Greenwich which enables students to obtain two awards within one programme. The master's profile has been formulated in close cooperation with Zuyd UAS and the University of Greenwich and is based on international standards from the BIFM (British Institute for Facility Management), the IFMA (International Facility Management Association) and the GEFMA (German Facility Management Association), through a literature review, and consultation meetings with experts from the Dutch professional field in Facility and Real Estate Management.

The panel acknowledges the added value of a programme that combines the domains facility management, real estate management and asset management but it encourages the master to further integrate these three domains. The current curriculum rather explicitly delineates between subdomains (see Standard 2). Although students indicate cross-overs are actively being made between them, the panel is pleased to hear that a new curriculum is being developed in which the integrative vision will be expressed more clearly. Within this new curriculum, the panel also recommends the master to give more attention to financial management topics and the

complexity level of asset management, as to further strengthen the balance between these three domains. This is also supported by students and alumni to whom the panel spoke during the site visit. Students and alumni experience a more extensive focus on facility management than initially expected. This is understandable when considering the position and background of the Master. However, it bears the risk of raising false expectations about the content of the programme.

According to the panel the double degree with the University of Greenwich offers more possibilities than have been exploited so far. This fits in with the current phase of co-operation, from benefitting from the University of Greenwich master's degree to two equal degrees now. This provides an opportunity to further strengthen the relationship with more exchange of knowledge and guest lecturers. Students the panel spoke with who visited the University of Greenwich during their recent study trip, were very enthusiastic about a more close cooperation and the possibility to learn from their latest insights. The panel sees that the programme is actively working on this after a period of Covid restrictions and staff changes on both sides and encourages this strongly.

Current set of learning outcomes

The master programme is built around four professional competences and one master's competence. The competence profile is the same for the full-time as well as the part-time programme. The competences are connected to the Dublin descriptors and in line with the Dutch bachelor standards for Facility Management. The panel is positive about the regular review of the competences. This was done in 2019 - using input from the programme's Advisory Board, the programme's Study Programme Committee, the programme's Examination Board, and the programme's lecturers - and in 2021 when the learning outcomes were reformulated in order to increase comprehensibility and clarify delineation among learning outcomes.

The five Saxion Master FREM competences are:

1. Proactively developing and/or improving FREM strategic alignment based upon methodical analyses of trends and developments in society, industry and FREM domain.
2. Systematically reviewing complex issues to optimise FREM processes and organisations, using (technological) innovations that add value in matching demand and supply, demonstrating entrepreneurial leadership and critical awareness of current problems and/or new insights.
3. Familiarising with power and interests of relevant internal and external stakeholders to initiate, manage and implement change.
4. Analysing the FREM portfolio to create, maintain and operate hard (space and infrastructure) and soft services (organisation and people) in an integrative way to deliver best value for money.
5. Collecting and analysing primary and secondary data in a critical way and communicating research results to specialist and non-specialist audiences.

The competences are formulated in a generic way and have been operationalised in learning outcomes per competence and module, see Appendix 3 for learning outcomes per competence. The level of professional performance is reflected in the complexity of the assignments and the master student's ability to act in complex professional situations and to take on a leading role. The programme aims for the highest levels in the ZelCom model (i.e. levels D and E).

The panel concludes that the intended learning outcomes as formulated by the study programme are in line with what may be expected from a professional master level. However, as mentioned above, when the emphasis of the programme is on the integration of facility, real estate and asset management, this could be more visible in the learning outcomes.

Tuning with the work field

The study programme maintains a lot of different contacts with the professional and educational field, according to the panel. Its Advisory Board meets twice a year to advise the programme on the developments and trends within the FREM field, the content of the modules and the quality of the theses. Additionally, the master FREM has installed an Academic Council, which consists of a number of representatives of relevant research groups within and outside of Saxion.

Calibration and consultation with Zuyd UAS and the University of Greenwich also helps to keep the programme up-to-date. Further connections with the work field are maintained through external thesis examiners, guest lecturers, business coaches and staff members who are partly professionally active. The members of the advisory board the panel spoke with, see the unique selling point of the programme in the combination of academic skills with those of facility, asset and real estate management. Alumni also see the relevance in the multi-disciplinary programme and connection with the University of Greenwich which can both be exploited even stronger according to them.

The panel is very positive about the many stakeholders that are involved and encourages the programme to intensify this, by actively updating the advisory board to get insights from different generations and different disciplines. And also by connecting the advisory board members and alumni even more, with guest lectures, real business cases and so on. The current involvement of business coaches (see Standard 2) fits in very well with this.

Standard 2 Teaching-Learning Environment

The curriculum, the teaching-learning environment and the quality of the teaching staff enable the incoming students to achieve the intended learning outcomes.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the master Facility and Real Estate Management study programme **meets** the generic quality requirements for Standard 2.

The study programme enables students to achieve the intended learning outcomes. These are sufficiently covered by the curriculum. The curriculum offers students a proper knowledge and skills basis for their future careers. The curriculum is well linked to the outside world however the international orientation can be further stressed within the modules. The level of training in research skills is very thorough. The panel notes that the present curriculum is somewhat delineated and therefore, it is pleased with the development of the new curriculum with a more integrated approach.

The programme's educational vision and didactical approach fit in well with its intended learning outcomes. Student mentoring is good, with special attention to limiting study delay for foreign students. Students are very pleased with the short lines and the personal approach, which benefits good mentoring. The study programme has a diverse, dedicated, highly-qualified and enterprising team of lecturers and supporting staff. Students are positive about the accessibility, engagement and expertise of their lecturers. As to staff matters, special attention is requested for the workload of lecturers who combine different roles within or outside the University.

Substantiation

Educational vision and didactical approach

The current curriculum is based on the following four cornerstones of the programme's educational vision:

- Blended learning
- Communities of inquiry
- Providing ample feedback
- Experiential learning

There is no distinction in didactical approach between the full-time and part-time programme. Students are stimulated to take responsibility for their learning process. They receive guidance in the form of web lectures, reading material and exercises. Debates, student presentations, lectures, workshops/seminars, peer reviews and in-class exercises are organised at school in Deventer. Each module is delivered by at least two lecturers. To supplement the expertise of the lecturers, guest lecturers are invited on a regular basis in most modules.

Students work in communities of inquiry² and since 2022-2023 the full time students also work in home groups, which is an implementation of the Saxion Educational Vision. These home groups of six to eight students receive study career counselling together and work on assignments together. Students are stimulated to give peer feedback within communities of inquiry and home groups, lecturers incorporate feedback moments in their lessons. Experiential learning takes form in the process of learning through reflection on doing. Students work on practical cases and reflect on the lessons learned from these cases.

These principles are combined with a didactical approach that wants to strike a balance between the academic world and professional practice and create professional situations - such as proposals, advisory reports and board presentations - for assessments. The panel is of the opinion that the programme has a clear educational vision and didactical approach, which fit in with its intended learning outcomes.

Content and structure of the curriculum

The curriculum exists of five modules of 8 EC each and finishes with a thesis of 20 EC (see also figure 1). These modules are:

- Strategic Business Management;
- Strategic Building Management;
- Strategic Asset Management;
- Strategic Facility Management; and
- Academic skills.

Since the present academic year the programme has a renewed introduction to kick-off the programme. This takes two days for full-time students and one day for part-time students and involves teambuilding, intercultural awareness and guest lectures. The programme has two optional courses: Academic English and a study visit to London. Three of four strategic management modules focus on the three domains relevant for the FREM field. The fourth strategic management module, Strategic Business Management, adds a more general business administration perspective. Within the Academic Skills module attention is paid to the training of students' academic skills, and more specifically to their research skills. Subsequently, in the other modules attention is also paid to research methods and critical thinking.

² The Master defines a community of inquiry as a group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding (Garrison, Anderson, & Archer, 2000). In the master programme this means facilitating room, both in class and at Blackboard, to discuss the contents of the programme within groups of students. These discussions are supervised and facilitated by lecturers.

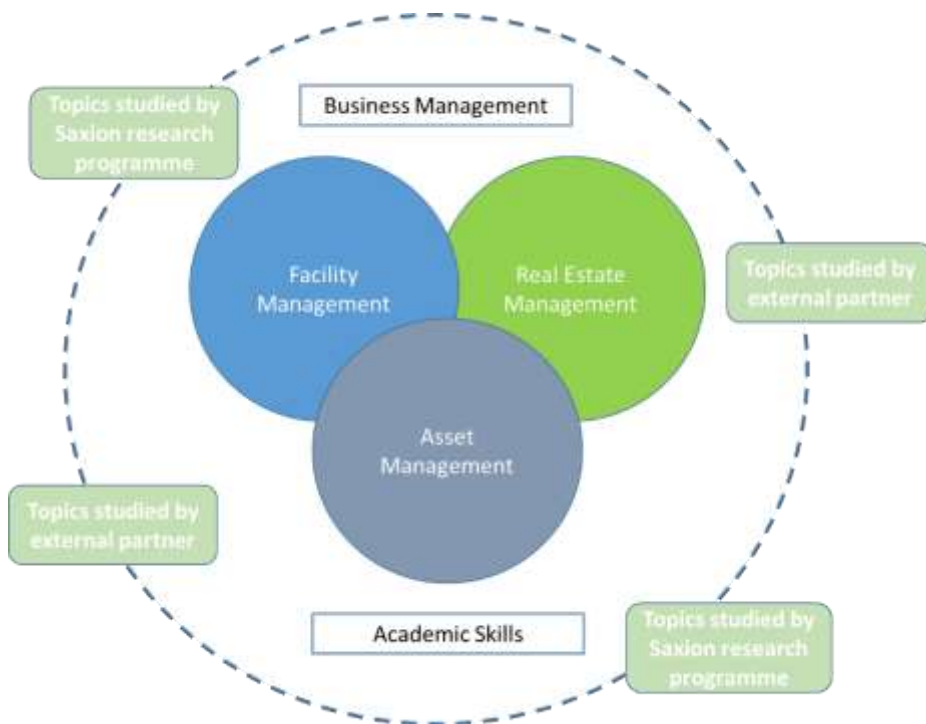


Figure 2. Relation between modules and research topics within the programme.

The modules are designed in such a way that they can be taken in any order. In the first term of their programme full-time students follow the Strategic Business Management module and the first half of both the Strategic Facility Management and the Strategic Building Management modules. During the second term they follow the Strategic Asset Management module and the second half of both the Strategic Facility Management and the Strategic Building Management modules. In this is to enable students to take a broader scope in finding a relevant thesis topic. Part-time students follow one of the four strategic management modules during each of the four terms. The first and second year part-time students always follow the same module in the first term of the academic year. In this way second year students can pass on their experience to first year students. The Academic Skills module is scheduled each term and provides students the skills required while working on the strategic management modules. The final term in the full-time programme and the final two terms in the part time programme are used to work on the master thesis.

All terms consist of 11 lecture weeks followed by three weeks used for examination. Full-time students have two and part-time students one lecture day per week in which they follow four classes of two hours. Three of these classes are dedicated to one of the strategic management modules and one of the classes is dedicated to the Academic Skills module. The remainder of the week, approximately 24 hours in the full-time programme and approximately 12 hours in the part-time programme, are used for studying at home. Students the panel spoke with state that the study load is doable but strict planning is required to stay on track.

The programme is working on a change within the curriculum, together with Zuyd UAS and the University of Greenwich. This is done to better express the integrative vision of the programme and be able to allocate relevant topics that affect all subdomains, such as digitalisation or change management, more easily. To be in line with the Saxion Educational Vision, modules will represent a multitude of 5 ECs.

The panel considers the current programme to be coherent, suitable for a master programme and offering students the tools they need to master the final competences. The panel does however see the relevance of a more elaborated integrated curriculum as envisaged for 2023-2024.

Internationalisation

The full-time programme attracts about 25% of non-Dutch students yearly which stimulates the international character of the programme. Internationalisation is an integrated aspect in the curriculum. At module level all prescribed and recommended literature used is in English and students are obliged to find additional international sources themselves within all modules. All modules are taught in English and all assessments take place in English too. Intercultural communication is part of the Academic Skills and Strategic Business Management module. The panel recognises this international scope of the programme but recommends to make this more visible within the modules with cases and examples with a more international character instead of the mainly Dutch focus it is seeing now. The panel also advises to extend this to the advisory board and incorporate international members. The panel is enthusiastic about the programme's intention to let students benefit more from each other's cultural background in the new curriculum by incorporating a form of micro reflections on their (intercultural) collaboration. The panel advises to show this international aspect also in the name of the Master: IFREM.

The panel is also positive about the concrete actions that have been taken to address the issue of foreign students needing more time to complete the study programme. The programme is introducing home groups, has revised the programme of the introduction and contacted the Saxion International Office to discuss how they could help to improve pass rates among international students.

Research skills

The study programme emphasises teaching students research skills from the perspective of addressing practice-oriented problems. Students are trained in survey and case study research. Academic Skills is the central module within which students learn to develop critical thinking skills and research skills. The panel sees this clearly reflected in the theses they studied which all have a sound methodological elaboration. Conversations with staff, students and alumni convinced the panel that student's research capabilities form a good basis to start in the professional field.

Based on student evaluations, and the meetings the panel had with students, the panel draws the conclusion that students are positive about the contents of the programme. They appreciate the proper balance between professional and academic skills. Students and alumni the panel spoke with were very satisfied with the improvement in their academic skills. They felt they really learned to write proposals, conduct research and write the final thesis. As mentioned in Standard 1, according to some students, asset management can be given more weight in the programme.

Mentoring and Career Development

The course coordinator - who works as supporting staff for the course director with regards to student processes such as recruitment, admission and planning - also acts as study career counsellor for students, which entails regular individual meetings to discuss study progress. It is also possible to make extra appointments with the course coordinator when desired and to contact the course director if problems occur that cannot be solved by the teaching staff. The small size of the study programme lowers the threshold for approaching lecturers and coaches. The recently introduced home groups receive study career counselling together. In 2021-2022 the

programme started an experiment with coaches from the professional field. These business coaches hold two to three meetings with students per year to discuss their professional development. Because of the positive experiences this is continued in 2022-2023. The panel is positive about this enrichment of the mentoring programme also for the positive effects on the student's professional network.

The panel is positive about the way different forms of coaching and guidance are organised. Lines are short and students' feedback is taken seriously. Good examples are the prolongation of the 'examination period' at the end of each term and the rescheduling of the deadlines of the Academic Skills module to make them relate better to the other deadlines.

Students and alumni the panel spoke with are especially pleased with the personal touch in tutoring and supervision. A foreign student said he "directly felt at home which made it a very pleasant student experience". Students praise the good communication and knowledgeable and passionate tutors who take students on board. General students' satisfaction in the National Student Survey 2021-2022 is 7,5.

As for career development, the panel suggest the programme to think about possibilities for international students to follow a Dutch language course during their stay here, similar to the existing optional course Academic English. This can be of help if they wish to pursue a professional career in the Netherlands and was also advised by one of the alumni the panel spoke with.

Teaching Staff

The panel spoke with an enthusiastic, professional and engaged team. The fact that the study programme is small, makes it possible to create an informal and sympathetic atmosphere. In student evaluations students state that they feel "seen" and that the threshold is low for approaching staff with questions or specific guidance or coaching issues. In the latest National Student Survey 2021-2022 the Master FREM scored a 7.9 average score for the questions about lecturers.

The team consists of 12 staff members, representing 7,3 FTE. A part of the staff has a second job within the FREM field, either in a large company or as a self-employed consultant. The panel concludes that the small scope of the appointments do not affect the dedication of the staff to the programme. Work pressure is high, but manageable as long as student numbers do not exceed twenty-four per class. Two staff members have a PhD, all others a master degree. All examiners have a BQE or SQE certificate (Basic or Senior Qualification Examination) or are in the process of obtaining BQE. Because of the modest size of the team, staff members take on different roles, such as involvement in both the bachelor and the master programme. As deadlines vary for bachelor and master programmes, the panel wants to ask special attention for work pressure within this combination.

The panel establishes that the academic level of the staff meets with the master level of the study programme. The staff consists of professionals with different academic backgrounds but is, according to the panel, still rather educated within one of the subdomains. The panel advises the programme to aim at a team composition that reflects the integrative nature of the profile.

During the Corona pandemic the programme was completely converted to online teaching.

Saxion provided support for lecturers with regard to online teaching and assessment through a digital platform. According to students points of improvement related to the Corona pandemic are the length of online courses and miscommunication on changes in the programme. The study programme is using the experiences of the last year to look for hybrid forms of teaching. The panel is impressed by the fast transition that was made to 100% online teaching when needed and notes that the points of improvement are addressed by the study programme.

Standard 3 Student Assessment

The programme has an adequate system of student assessment in place.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the master Facility and Real Estate Management study programme **meets** the generic quality requirements for Standard 3.

The study programme has an assessment policy which is in line with the learning outcomes. According to the panel the programme's assessment structure is clear and insightful for students. All tests are individual which the panel finds suitable for a master's programme but also -as most are also written assignments- rather labour-intensive for both lecturers and students. The panel recommends to make formative testing a more formal documented part of the assessment policy, as well as a more holistic approach to testing. This fits in well with a more integrative curriculum and will also help reduce workload for lecturers and students.

Students show they master the competences at final level in the master thesis. This thesis is assessed with a presentation and a coursework assignment. From the conversations with the assessors and students it became clear to the panel that the method of testing the final phase is to their satisfaction. With respect to the final works, the panel recommends to introduce an assessment form that enables the study programme to make a sharper distinction between excellent and average students. The panel also recommends the team to calibrate about the extent and formulation of additional feedback on the assessment form.

The panel has established that the Examination Board works in line with the law and regulations. The panel compliments the Examination Board with its active involvement and concludes it addresses relevant points of improvement. From the conversations with the study programme it became clear that points of improvement are recognised and acted upon. In conclusion the panel argues that the system of assessment guarantees proper quality assurance and is adequate to ensure master level.

Substantiation

Assessment policy

The leading principles of the Master FREM's assessment policy are documented in its Education and Assessment Policy FREM 2021-2022 and are based on the Saxion education and examination regulations, the Saxion Assessment Policy (Toetsbeleidskader), and the Master FREM Competency Profile. Each module contributes to the training of one or more competences. All five regular modules consist of two assessments (see table 1).

Module	Test	Weight	Competences	Professional role	Genre
Strategic Business Management	Presentation	50%	1,2,3,5	Not applicable	Performance Interview
	Coursework Assignment	50%	1,2,3,5	Manager	Organisational analysis paper
Strategic Building Management	Coursework Assignment 1	30%	1,4,5	Manager	Real estate policy plan
	Coursework Assignment 2	70%	1,4,5	Consultant	Building performance optimisation pitch
Strategic Asset Management	Coursework Assignment 1	30%	1,4,5	Consultant	Portfolio with 3 advisory reports about financial management
	Coursework Assignment 2	70%	1,4,5	Intrapreneur	Investment report
Strategic Facility Management	Coursework Assignment	75%	1,2,3,5	Researcher	Portfolio with 3 essays
	Presentation	25%	1,2,3,5	Consultant	Boardroom pitch
Academic Skills	Coursework Assignment 1	40%	5	Researcher	Portfolio consisting of an argumentation, review, and data analysis assignment
	Coursework Assignment 2	60%	5	Researcher	Research proposal
Thesis	Presentation	20%	1,2,3,4,5	Not applicable	Performance interview
	Coursework assignment	80%	5	Researcher	Research report

Table 1. Assessment plan Master FREM.

The programme consists of two types of tests: presentations and coursework assignments, which take different forms (see table 1). The competences and learning outcomes are explicitly linked to each test. The programme aims to assess the ability of students to perform in different professional roles and in different genres that are relevant for the FREM field. The more professional tests are taken from the industry. In these tests students make products that are in accordance with industry-products at strategic corporate level. The part-time students use cases from their own professional context. Since it is a master programme assessments are taken mostly at the does level of Miller's Pyramid. Presentations are always assessed by two lecturers.

According to the panel the programme's assessment structure is clear and insightful for students. All tests are individual tests, although sometimes some group work is allowed when preparing for the tests. The panel finds this suitable for a master's programme but -with 10 final assessments divided over the modules- rather labour-intensive for both lecturers and students. The panel also notes that the master programme makes relatively little use of formative tests. This takes place within the lessons through feedback from students and lecturers. The panel recommends to make formative testing a more formal documented part of the assessment policy, as well as a more

holistic approach to testing. This fits in well with a more integrative curriculum and will also help reduce workload for lecturers and students.

Execution of assessment policy

All tests have to meet requirements in the field of validity, reliability and transparency. Whether they do so, is evaluated by the Examination Board. In addition, the Study Programme Committee evaluates efficiency of tests. The study programme works with standardized assessment forms, using rubrics and exam matrices. The study guide, exam matrix and assessment forms are accessible for students at the start of the module, via Blackboard.

The programme has put extra effort in testing procedures (such as meeting assessment deadlines, reporting about plagiarism scores) on instigation of the Examination Board, for example by being stricter in applying procedures and by reviewing its document management. According to the last check of the Examination Board, this has been sufficiently improved, with the advice to keep giving attention within the team to fill in the plagiarism check on the assessment forms. The panel is positive about the active role of the Examination Board and the subsequent actions taken by the programme.

The panel has studied a representative selection of written assessments and related assessment forms. Its finds the variety of types of assessment is broad enough, but that, as stated above, the programme will gain from a more integrated form of assessing, fitting in with the intended structure of the new curriculum. With regard to the execution of the assessment policy, the panel is of the opinion that the programme's quality assurance system for students is well thought through with calibration of grading, the use of testing matrices and the four-eye-principle for each assessment of presentations and the final thesis.

Graduation phase

Students show they master the competences at the final level in the master thesis. This thesis is assessed in two tests: a presentation (assessing all competences) and a coursework assignment (assessing competence 5). The weight of the separate components in the final grade is 80% for the report and 20% for the presentation. The grading involves the tutor as first examiner and a second, independent, examiner. If the two examiners cannot reach a unanimous assessment of the thesis they can request the Examination Board to perform a doublecheck of the assessment.

In preparation to starting the research report, students write of the research proposal. This proposal and also the draft version of the report are formatively assessed and offer students the opportunity to receive feedback.

The final assessment form consists of four different categories which have to reach a minimum score to be able to succeed the test. Also, the assessment form includes a so-called 'red button' with which the examiners can determine if there is anything, either present or absent in the thesis, which is significant enough to give an insufficient grade.

From the conversations with the assessors and students it became clear to the panel that the way of testing the final phase is to their satisfaction. The panel acknowledges the positive effect of conducting the presentation at the start of the research process to be able to integrate feedback. The panel does recommend however to adjust the assessment form for the thesis so that it better shows the specific competence 5 that is assessed. In the present form the panel sees elements of competences which are not specifically part of the test according to the assessment policy.

The panel further advises to let go of the analytical structure a little and adopt a more holistic approach within the thesis assessment form. The present assessment form is very well suited to distinguish between sufficient and insufficient work but, because of the leveling aspect of the large number of criteria, less for distinguishing between good and excellent work. The panel also saw differences in the extent and manner of providing written feedback among examiners. The panel therefore recommends the team to calibrate more frequently with regards to the manner in which written feedback and explanation is given by examiners.

Quality assurance

The Master FREM has its own independent Examination Board which consists of three members, including an external member, and a secretary. This choice was made to be able to focus on the master, which would be a small part of the HBS Examination Board next to the 3000 bachelor students. From the annual reports, the conversations with representatives of the Examination Board and examiners, the panel concludes relevant issues are addressed and the Examination Board uses different instruments to monitor the quality of assessment and the level of the study programme. The panel sees a very active and involved Examination Boards that addresses the right topics and actively monitors them.

The Examination Board monitors if quality requirements to function as an examiner in the master programme are followed. Recently the Examination Board has re-approved all tests of the programme. This is done once every three years. Test procedures are checked every year. Also every year, an audit is carried out of the final products (graduation phase), conclusions of which are discussed with management. In addition the study programme organises calibration sessions on the final level, by discussing the thesis, the projects and the assessment procedures.

As the FREM programme is a double degree programme, its programme is also scrutinised according to the external examining system the University of Greenwich uses to verify the academic standards of the programme and its courses. Moreover there are regular exchanges with the Examination Board of the Master FREM from Zuyd UAS and the Academic Council in which theses are evaluated.

Standard 4 Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the master Facility and Real Estate Management study programme **meets** the generic quality requirements for Standard 4.

Students demonstrate they master the competences at the final level with a presentation and a thesis. The thesis shows the student's thorough knowledge of methodological research and the presentation gives students the opportunity to further sharpen their research topic and reflect on their learning process. Students and alumni the panel spoke with were very positive about this set up. The panel considers the level of the final works they have studied sufficient for a master programme. These theses reflect how students carry out research and report on this process. In the eyes of the panel the emphasis on academic research in the thesis overshadows the value for the work field which can be elaborated more explicitly. The empirical research cycle is effectuated very thorough in most theses but more emphasis can be laid upon the stages after that such as conclusions, recommendations and reflection on the quality of the research. The panel stimulates the study programme therefore to take a next step with regard to the thesis, in making the product itself more applied while maintaining the academic standard. Furthermore, the interdisciplinary approach, one of the programme's main aims, could be more present in the theses module.

Substantiation

Graduation products and level of intended learning outcomes

The thesis, including the research in response to a relevant professional assignment, is carried out on an individual basis. Students are free to choose their own topic. The focus of the thesis must be relevant to the FREM field, but students are not obliged to select a topic that covers all three domains of the FREM field. The Academic Skills module is closely connected with the thesis. The lecturers of this module supervise the research proposal, together with the tutor who is assigned to the student on the basis of the research topic. During the research proposal phase the research supervisor takes the lead and carries out the assessment, with the tutor being available for additional consultations. During the thesis itself, the tutor will take the lead and will carry out the assessment, with the research supervisor being available for additional consultations. The second examiner will only be involved in assessing the presentation and thesis. Students also receive group support in the form of the communities of inquiry.

The presentation assesses all five competences to see if students are able to reflect on strategic level on the integrated FREM field. It does not focus on the specific thesis topic but on the ability of the student to relate this topic to relevant strategic issues in the FREM field. The thesis focuses specifically on competence 5 and the research skills of the student.

The panel is of the opinion that the graduation phase is designed with a proper assessment system. After speaking with students, alumni and lecturers, the panel acknowledges the formative

function of the presentation that takes place before the actual research starts. As well as a moment of reflection on the learning process of the student and its ability to link the topic to relevant and current issues, it gives students the opportunity to further sharpen their research topic. Better outlined assessment forms can avoid the confusion the panel first encountered when trying to fully comprehend this structure.

Level of intended learning outcomes in graduation products

The panel has studied a number of exams that illustrate the final level of Master FREM students at graduation. These documents consisted of fifteen final projects of students who graduated in the last two academic years. As to the graduation products, the panel is satisfied with the research level. The panel is of the opinion that the empirical research cycle is effectuated very thoroughly in most theses but more emphasis can be laid upon the stages after that such as conclusions, recommendations and reflection on the quality of the research. This also forces the student to sharpen the relevance of the topic and the research for the field. The academic council, that studied two theses last study year, did also acknowledge this.

Furthermore, the interdisciplinary approach, one of the programme's main aims, could be more present in the theses module. The panel noticed that some thesis topics seemed rather obsolete from a Dutch perspective, however, according to the programme, staff, advisory board and students these themes are still relevant. Therefore, panel advises to stress relevance for other contexts if this is the case. Despite the above critical remarks, the panel has also seen some theses in which the quality of the research was very high and which were truly interdisciplinary. A good example is a study of the implications of the accelerated transition from physical to online education in colleges for space typologies in educational buildings. As to the assessment forms of the theses, according to the panel, some of them could be more insightful and the feedback students get could be more elaborate (see also Standard 3).

Functioning of alumni in the work field

The representatives of the work field the panel spoke with are enthusiastic about the study programme and the graduates. Alumni are positive about how the master programme prepared them for their professional career. They are very positive about how the curriculum developed their critical thinking skills and trained them to consider the impact of decisions and issues on a strategic level. As already mentioned in Standard 1, they would like to see more focus on financial management topics and be given a more international overview on the practice. Many alumni are still in close contact with the programme and the panel encourages the programme to involve alumni as much as possible within the programme, as guest lecturers, business coaches or in the work field committee.

The study programme has a LinkedIn page for alumni. Job profiles of members of the alumni LinkedIn group were analysed in 2016 and again in 2019 and 2022. The 2022 analysis shows that most graduates work in the real estate domain (36% of alumni jobs), and 26% in the FM-domain, 20% in the asset management domain, and 18% in a combined domain (FREM). Dominant job positions are consultant, portfolio manager, realtor, asset manager, procurement specialist, developer, project manager, investment manager, head of department, tender manager and policy maker.

Final Conclusion

Assessments of the Standards

The audit team comes to the following judgements with regard to the standards:

	Master Facility and Real Estate Management
<i>Standard 1 Intended Learning Outcomes</i>	Meets the generic quality requirements
<i>Standard 2 Teaching-Learning Environment</i>	Meets the generic quality requirements
<i>Standard 3 Student Assessment</i>	Meets the generic quality requirements
<i>Standard 4 Achieved Learning Outcomes</i>	Meets the generic quality requirements

The judgements have been weighed in accordance with the NVAO assessment rules. On the basis of this, the audit panel assesses the quality of the existing master study programme Facility and Real Estate Management of Saxion University of Applied Sciences as **positive**.

Recommendations

The audit panel has the following recommendations for the study programme:

Standard 1

- Within the envisioned new integrative curriculum give more attention to financial management topics and the complexity level of asset management, as to further strengthen the balance between these three domains.
- Realise a stronger substantive cooperation with the University of Greenwich.

Standard 2

- Make the international scope more visible within the modules with cases and examples with a more international character instead of the mainly Dutch focus the panel has noticed so far. The panel also recommends to extend this to the advisory board and incorporate international members.

Standard 3

- Make formative testing a more formal documented part of the assessment policy, as well as a more holistic approach to testing. This fits in well with a more integrative curriculum and will also help reduce workload for lecturers and students.
- With respect to the thesis assessment form, the panel recommends to:
 - Introduce an assessment form that enables the study programme to make a sharper distinction between excellent and average students;
 - Adjust the assessment form to the specific competence 5 that is assessed;
 - Calibrate as a team about the extent and formulation of additional feedback on the assessment form.

Standard 4

- Take a next step regarding the thesis, by considering ways in ensuring how the product itself could have a more applied nature, while maintaining the current high academic standard. Furthermore, the interdisciplinary approach, one of the programme's main aims and its unique selling point, could be more evident in the theses module.

Appendices

Appendix 1: Programme of the Site Visit

Programme subject	Role / function	Time	Location	supply
Reception panel members				
		09:00 - 10:00		
Welcome, pitch & conversation programme management				
<i>SPC Master FREM</i>		10:00- 10:45		
<i>SPC Master FREM</i>				
<i>Course director Master FREM</i>				
<i>Course coordinator Master FREM</i>				
<i>Dean of Hospitality Business School</i>				
Conversation students & alumni				
FT student		11:00-12:00		
PT student 1				
PT student 2				
FT Alumnus				
PT Alumnus				
PT Alumnus				
Brake		12:00 - 13:00		Lunch
Pitch and conversation teaching staff				
		13:00-14:00		
Conversation examination board				
		14:15 - 15:00		
Brake		15:00-15:15		
Conversation advisory board and academic council				
		15:15-16:00		
Consultation panel				
Feedback panel				
Allen		17:00 - 17:15		
Drinks with the team		17:15 - 17:30		

Appendix 2: Documents Examined

- Kwaliteitsdashboard FREM
- Education and Assessment Policy
- Education and Examination Regulations
- Internalisation within HBS curricula 2022
- Members Academic Council 2021-2022
- Members Advisory Board 2021-2022
- Members Study Programme Committee 2021-2022
- Research programs involved within the program 2021-2022
- Saxion Language policy framework
- Study Guide
- Examples of assessment records
- A3 Study success Academic Skills
- Annual Monitoring Report 2020-2021
- Annual Report Examination Board, 2018-2019, 2019-2020, 2020-2021, 2021-2022
- Members Examination Board 2021-2022
- Core data regarding the programme
- Minutes Study Programma Committee 2020, 2021, 2022
- Register Examiners 2021-2022
- Report Internal Audit 2019
- Results National Student Survey 2021
- Study Programme Assessment NQA 2017
- Selection of 15 Theses from 2021-2022 and 2021-2020 (10 from full-time and 5 from part-time students)

Appendix 3: Learning outcomes per competence

Competence 1
Deliver a professional contribution to the body of knowledge of the industry involved.
Apply knowledge and academic skills acquired throughout the programme.
Judge and reflect on the added value of facility management to the corporate strategy with respect to the international FREM market trends.
Analyse the capital market and investment industry from a broader perspective.
Appraisal of a property based on market tendencies, exploitation data, forecasted returns, and value of real estate assets, with respect to risks.
To judge and reflect on the alignment of a corporate real estate strategy with a corporate strategy in the complex context of trends and developments.
Critically appraise the use of real estate as a business resource or an enabler of change for adapting to changing circumstances.
To analyse the performance of a specific building or building portfolio with the help of (building performance evaluation) tools.
Critically analyse a strategic business plan based on corporate strategy analysis.
Judge, reflect on, design and show effective leadership within changing organisations and/or organisation environments.
Translate findings into appropriate conclusions and recommendations.
Competence 2
Apply knowledge and academic skills acquired throughout the programme.
Translate findings into appropriate conclusions and recommendations.
Design a facility services strategy, including a sourcing strategy, in alignment with the company's corporate strategy and structure matching internal demand and supplies; raising quality efficiently; reinforcing service coherency.
Critically review organisation structures.
Judge, reflect on, design and show effective leadership within changing organisations and/or organisation environments.
Synthesise relations between organisational goals and supportive and control processes.
Deliver a professional contribution to the body of knowledge of the industry involved.
Competence 3
Apply knowledge and academic skills acquired throughout the programme.
Translate findings into appropriate conclusions and recommendations.
Design a facility services concept in alignment with the company's corporate strategy and structure matching internal demand and supplies; raising quality efficiently; reinforcing service coherency.
Design a policy for successful cooperation with internal and external suppliers in order to create an appropriate supply chain, including make, buy or ally decision making.
Analyse the performance of facility management processes, and of contract and supplier management.
Judge, reflect on, design and show effective leadership within changing organisations and/or organisation environments.
Deliver a professional contribution to the body of knowledge of the industry involved.
Competence 4
Apply knowledge and academic skills acquired throughout the programme.
Translate findings into appropriate conclusions and recommendations.
Analyse the capital market and investment industry from a broader perspective.
Analyse financial reporting on a general level.
Analyse the financial structure and performance of a real estate asset within specific market circumstances and within a real estate portfolio with respect to risks.
Appraisal of a property based on market tendencies, exploitation data, forecasted returns, and value of real estate assets, with respect to risks.
To apply Discounted Cash Flow (DCF), Internal Rate of Return (IRR) and Net present Value (NPV) techniques.
To analyse the performance of a specific building or building portfolio with the help of (building performance evaluation) tools.
To develop an improvement plan for an optimised real estate strategy or building performance with

a clear discussion of contribution to the overall corporate strategy.
Critically appraise the use of real estate as a business resource or an enabler of change for adapting to changing circumstances.
Deliver a professional contribution to the body of knowledge of the industry involved.
Competence 5
Apply knowledge and academic skills acquired throughout the programme.
Appreciate the importance of schools of thought within philosophy of science.
Critically appraise the quality of research questions and hypotheses of a specific research.
Critically appraise the appropriateness of research strategies and research methods of a specific research.
Collect and analyse relevant data in a valid and reliable way.
Correctly apply methods of data analysis in both quantitative and qualitative research.
Develop a coherent research project proposal for solving a research problem, including research questions, hypotheses, research strategies, methods of data collection and data analysis, and project planning, supported by international academic literature.
Execute a coherent research project for solving a research problem, including research questions, hypotheses, research strategies, methods of data collection and data analysis, and project planning, supported by international academic literature.
Translate findings into appropriate conclusions and recommendations.
Deliver a professional contribution to the body of knowledge of the industry involved.
Develop presentational skills in relation to the results of analyses in a persuasive, informative and critical manner.