



Saxion University of Applied Sciences

Facility and Real Estate Management

Limited Study Programme Assessment

Summary

In January 2017 the professional master degree programme Facility and Real Estate Management (FREM) of Saxion University of Applied Sciences was visited by an audit panel from NQA. The programme is offered in English and offers a full-time and a part-time programme for students. The audit panel assesses the quality of the study programme as **good**.

Standard 1: Intended learning outcomes

The programme receives the assessment **good** on standard 1.

The FREM programme of Saxion UAS has established a strong and complete vision on the ideal FREM professional. Relevant stakeholders were involved in the process of creating this vision. Matching the vision, the programme uses the five competences that were established in cooperation with the University of Greenwich and Zuyd UAS. The competences meet the requirements regarding content, level and orientation and are concretized in learning outcomes for each module. The advisory board, with representatives of the professional field, validated the profile and in addition, is involved in discussions on the content of the modules. This close connection of the FREM programme with the professional field is appreciated. In addition, the programme is accredited by the Royal Institute of Chartered Surveyors (RICS), a professional body that accredits study programmes and professionals within land, property and construction sectors worldwide. The panel considers this to be a distinctive feature of the programme.

Standard 2: Teaching-learning environment

The programme receives the assessment **good** on standard 2.

The content of the modules is well derived from the intended learning outcomes, the competencies. An in detail description of each module is laid down in the *Study Guide* which holds clear information on, for example, the learning goals, the context of the module, the lesson plan, examination and the literature (compulsory and recommended). Having studied the content of the programme, the panel is positive on the level and orientation. The panel is pleased with the content of the module Academic skills and the panel supports the ambition to strengthen the connection of the programme with research programmes.

Furthermore, the panel has seen that the programme is well designed. The didactical approach, with blended learning and flipping the classroom as central concepts, stimulates students to study actively leading to valuable discussions which deepen the understanding of students of the underlying concepts. The programme is coherent. With regard to staff involved, the panel concludes that the team (full-time & part-time) is well capable of guiding students towards obtaining the intended learning outcomes. Their expertise and their experience in the FREM-field contribute to this. Despite their relatively small appointments, the panel has seen that the lecturers function as an enthusiastic and involved team. Furthermore, the panel is pleased with the professionalization activities.

In conclusion, the panel states that the FREM programme of Saxion UAS provides a strong, well-considered and rich teaching-learning environment.

Standard 3: Assessment

The programme receives the assessment **good** on standard 3.

The FREM-programme has a professional assessment system in place. The *Education and Assessment Policy* is the backbone of this system as it holds the regulations for appropriate testing and assessment. The assessments of the programme are clearly aligned with the competences, learning outcomes and aim of the modules. This also becomes clear in the *Study Guide*, which provides students with detailed information on the assessments for each module. The panel concludes that the assessments of the programme are challenging and stimulate students to apply the knowledge and skills obtained throughout the module. The assessment forms confirmed the quality of assessments to the panel. The criteria are in line with the goals of a module. Having studied various filled out assessment forms, the panel finds the marks given realistic and considers the provided feedback valuable and supportive to the students learning. Moreover, the assurance system for assessments is appropriate. The panel is impressed by the comprehensive and sound role of the Examination Board.

The panel has only two more critical remarks regarding the system of assessment. These concerns the variety of (types of) assessments and the assessment form of the (single) written exam of the programme.

Standard 4: Achieved learning outcomes

The programme receives the assessment **good** on standard 4.

The programme has demonstrated how the competences are assessed on the (professional) master level in the thesis-phase. The thesis reports that the panel studied, convincingly showed that graduates obtained the intended learning outcomes. The thesis reports reflect the ability of students to execute a research project in a proper – sometimes even good – way and so contributing to the knowledge on FREM topics. The interviews with students, graduates and representatives of the FREM field made it clear that the programme lifts students to a strategic level within the FREM-field.

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Introduction

This is the assessment report of the professional master degree programme Facility and Real Estate Management offered by Saxion University of Applied Sciences (Saxion UAS). The assessment was conducted by an audit panel compiled by NQA, commissioned by Saxion UAS. Prior to the assessment process the audit panel has been approved by NVAO.

In this report Netherlands Quality Agency (NQA) gives account of its findings, considerations and conclusions. The assessment was undertaken according to the *Assessment frameworks for the higher education system* of NVAO (19 December 2014) and the *NQA Protocol 2016 for limited programme assessment*.

The site visit took place on January 20, 2017. The audit panel consisted of:
Dr. ir. F.W. Melissen (chairperson, representative profession/discipline)
Dr. ir. R. Beckers (representative profession/discipline)
M.J. Reijven MBA MRICS RVGME (representative profession/discipline)
I. Janssen (student member)

P. van Achteren BLL, NQA-auditor (sr.), acted as secretary of the panel.

The study programme offered a critical reflection; form and content according to the requirements of the appropriate NVAO assessment framework and according to the requirements of the *NQA Protocol 2016*. The audit panel studied the critical reflection and visited the study programme. Critical reflection and all other (oral and written) information have enabled the panel to reach a deliberate judgement.

The panel declares the assessment of the study programme was carried out independently.

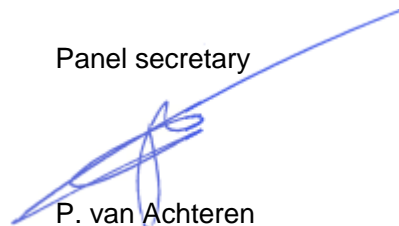
Utrecht, April 2017

Panel chairman



F.W. Melissen

Panel secretary



P. van Achteren

Basic data of the study programme

Administrative data

<i>Administrative data of the study programme</i>	
Name study programme as in CROHO	Facility and Real Estate Management
Orientation and level study programme	hbo; master
Grade ¹	Msc.
Number of study credits	60 EC
Location	Deventer
Varieties	Full-time and part-time
Language used	English
Registration number in CROHO	70144

<i>Administrative institutional data</i>	
Name institute	Saxion University of Applied Sciences
Data institutional contactpersoon	Joris Verwijmeren j.a.verwijmeren@saxion.nl
Status institute	Funded
Result institution quality assurance review	Positive (NVAO-decree 28 juni 2012)

Short outline of the study programme

The master Facility and Real Estate Management (FREM) is one of four bachelor and two master programmes that are organized within the Hospitality Business School (HBS), one of eleven schools within Saxion UAS.

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: an Msc Facility Management (since 1995) and an Msc Real Estate Management (1999). After the programme had obtained an accreditation by the NVAO in 2010, it changed into a double degree with an integrated Facility and Real Estate Management degree in the Netherlands and the existing dedicated MSc degree in the UK. Since 2012 the five universities are no longer joined in a consortium. Two universities discontinued their FREM programme; Zuyd UAS and Saxion UAS now offer the programme independently, both as a double degree programme with the University of Greenwich.

¹ As listed in 'referentielijst'

Standard 1 Intended learning outcomes

The intended learning outcomes of the programme have been concretised with regard to content, level and orientation; they meet international requirements.

In this chapter the audit panel describes the findings, considerations and conclusions on the intended learning outcomes. The study programme receives the assessment **good** for this standard.

The ideal FREM Professional

The unique selling point of the FREM programme is the integration of facility management and real estate. The main focus of the programme is 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. Using this focus, the programme developed the following vision on the ideal FREM-professional:

“A FREM professional is able to deal with strategic issues in the dynamic field of facility and real estate management as a manager, researcher, consultant or intrapreneur. He/She is aware of relevant international trends and developments, and is able to use academic and professional literature to come up with new insights and solutions. In addition, he/she is able to deploy a variety of research methods to acquire additional knowledge if required. Finally, he/she is able to communicate these insights to a variety of specialist and non-specialist audiences. During the entire process of analysing problems and finding solutions the FREM professional has a reflective attitude”.

This vision has been updated for the period 2016-2020, based on academic and professional literature review, as well as discussions with alumni and experts from the FREM field. Furthermore, it was debated within Saxion UAS for example by the lecturers of the programme and by representatives of a variety of committees such as the ‘Research in Education Programme’ and the Advisory board. Finally the vision was discussed with the partner universities Zuyd UAS and the University of Greenwich. The panel states that the FREM programme of Saxion UAS established a strong and complete vision on the FREM professional. The panel appreciates that the programme involved all relevant stakeholders into this process.

Five FREM competences

Aligned with the University of Greenwich and Zuyd UAS, the FREM programme of Saxion UAS uses a set of five competences as intended learning outcomes:

- 1) Methodically recognizing developments and trends in the external sector and integrating them into the FREM strategy.
- 2) Analysing primary processes and developing FREM strategy from them in an initiating and creative way showing entrepreneurial leadership.
- 3) Establishing, commanding and improving FREM processes and organisation processes to develop processes of change in a client oriented and efficient way;

- 4) Analysing the building portfolio aspects in the context of FREM processes and the FREM company environment and the company financial situation to enhance the added value of the facilities.
- 5) Judging and reflecting based on incomplete information within a research context and being able to underpin knowledge and rationale to specialist and non-specialist.

Besides these competences, the programme made sure to incorporate a number of so-called Greenwich Graduate Attributes to ensure the double degree. These attributes - divided in three themes: scholarship & autonomy, creativity & enterprise and cross-cultural & international awareness - are integrated into the curriculum.

The panel confirms that the intended learning outcomes are solidly aligned with the partner institutes and meet the requirements regarding content and orientation. Regarding the (professional) master level the competences meet the Dublin descriptors. These solid alliances, together with others, became clear in the Study Guide (2016-2017). This document also provided insight in the translation of the competences into learning outcomes of the programme. This shows a clear concretization of the competences, according to the panel.

Professional requirements

To ensure alignment with the requirements of the professional field, FREM has established an Advisory Board. The reports of meetings of this board with the programme and the interview with a number of representatives showed the panel that involvement of the professional field is well organized. Their input is valuable to the programme. Not only by their capacity to contribute to validating the competences, but also through their active participation in discussions on the content of the modules. The panel is pleased to see this strong involvement, which contributes to the alignment with the demands from the FREM professional field.

Another way in which the programme ensures alignment with professional requirements, is by their RICS accreditation. The Royal Institute of Chartered Surveyors (RICS) is a professional body that accredits study programmes and professionals within land, property and construction sectors worldwide. In June 2016, the RICS accredited the FREM programme of Saxion UAS. The RICS panel confirmed that the integration of facility and real estate management into one discipline remains an important trend and a solid basis for the FREM study programme. With the RICS accreditation it is easier for graduates to become a RICS member, which in several countries is a valuable addition for graduates to their master degree.

Conclusion

The FREM programme of Saxion UAS has established a strong and complete vision on the ideal FREM professional. Relevant stakeholders were involved in the process of creating this vision. Matching the vision, the programme uses the five competences that were established in cooperation with the University of Greenwich and Zuyd UAS. The competences meet the requirements regarding content, level and orientation and are concretized in learning outcomes for each module. The advisory board, with representatives of the professional field, validated the profile and in addition, is involved in discussions on the content of the modules. The panel appreciates the close connection with the professional FREM field that the programme facilitates.

A last positive finding within this standard is the accreditation by RICS. The panel considers this to be a distinctive feature of the FREM programme of Saxion UAS.

Based on above mentioned considerations the audit panel assesses standard 1 as **good**.

Standard 2 Teaching-learning environment

The curriculum, staff and programme-specific services and facilities enable the incoming students to achieve the intended learning outcomes.

In this chapter the audit panel describes the findings, considerations and conclusions on the learning environment. The study programme receives the assessment **good** for this standard.

Redevelopment: towards integration

In 2014-2015 the programme was redeveloped, with the new formulated vision (see standard 1) as a starting point. A tighter integration of facility and real estate management and a more strategic focus were the most obvious changes made within the curriculum. Furthermore, to create a better fit with Dutch academic standards, the Saxion UAS organization and Dutch regulations, the programme was restructured from 72 EC (14 months) into a 60 EC (12 months) curriculum. The programme was adjusted to reduce overlap among modules, eliminate non-strategic content and integrate related topics in larger modules, whilst maintaining the level of qualifications. The panel states that FLEM Saxion UAS made solid, justifiable adjustments regarding the programme. The process of the redevelopment was thorough, with valuable involvement of parties like their partner institutes (Zuyd UAS & Greenwich University), the professional field (e.g. Advisory Board), lecturers and students. The involvement of these parties made it possible to simultaneously adapt the programme to recent developments within the FLEM field.

Programme Overview

The redeveloped program consists of three terms of 14 weeks in the full time programme and six terms of 14 weeks in the part time programme. During each term, full time students follow two professional modules and part time student follow one professional module. Separate from this, during each term the Academic Skills module is scheduled. The final term in the full-time programme and the final two terms in the part time program are used to work on the master thesis. This all results in the following overview:

Programme full-time

Term 1	Term 2	Term 3
Academic skills (8 EC)		Thesis (20 EC)
Strategic Business Management (8 EC)	Strategic Facility Management (8 EC)	
Strategic Building Management (8 EC)	Strategic Asset Management (8 EC)	

Programme part-time

Term 1	Term 2	Term 3
Academic skills (8 EC)		
Strategic Business Management (8 EC)	Strategic Building Management (8 EC)	Strategic Asset Management (8 EC)

Term 4	Term 5	Term 6
Academic skills (8 EC, continued)	Thesis (20 EC)	
Strategic Facility Management (8 EC)		

Content of the programme

The curriculum offers five modules that are individually equivalent to 8 EC and finishes with a thesis module of 20 EC. The main focus of each module can be described as follows:

- Within Strategic Business Management the programme focuses on leadership and business strategies and their impact on primary and supportive processes. Students consider how the (organization of) supportive processes can contribute to organizational goals in a balanced way.
- Strategic Building Management pays attention to long-term real estate strategies, property valuation of specific buildings and development of an improvement plan that aims to increase the performance of the building for its users.
- Strategic Asset Management focuses on the financial perspective of a real estate portfolio. The central question is how the portfolio performance can be improved (from a financial perspective).
- Strategic Facility Management focuses on increasing the added value of housing and facilities through smart 'make, buy or alley' choices, best-value procurement, matching demands and deliveries (integrative and coherent set of service lines) and an effective contract and supplier management approach.
- Within Academic Skills students prepare for the thesis phase. Students develop a research proposal and learn how to assess and select sources, research methodology, research design and reasoning.
- The thesis is about appropriate execution of the research as designed in the proposal stage. Valid and reliable output, gained by solid reasoning, and the use of acknowledged sources are the main assessment criteria.

Internal consistency and logic

The competences are allocated to the modules of the curriculum. In the new curriculum has been made sure that all competences are assessed in at least two modules, that the academic competence is assessed in all modules, and that all competences are assessed within the master thesis. As the competences are formulated in a very generic way, they have been translated in learning outcomes for each module. For example, the module Strategic Facility Management addresses the competences 1, 2, 3 & 5. The description of the module in the *Study Guide 2016-2017*, shows that these competences are translated into five specific learning outcomes. Two examples of these learning outcomes are: 'to judge and reflect on the added value of FM to the corporate strategy with respect to the international FREM market trends' and 'to design a facility services concept in alignment with the company's corporate strategy and structure matching internal demand and supplies; to raise quality efficiently; to reinforce service coherency'. The panel has studied the relationship between the competences and the learning outcomes and finds this relationship to be consistent and logical. The learning outcomes are a clear operationalization of the competences and represent the required level of a master programme.

Furthermore, the panel is positive about the extensive and detailed descriptions of the modules in the *Study Guide 2016-2017*. Next to the competences and the learning outcomes, the description contains the aim of the module, information on the examination, the teaching methods, the

themes addressed in the module, the schedule of the programme and the literature (compulsory and recommended).

Knowledge and skills

As stated above, the *Study Guide 2016-2017* provides clear information on the content of the modules. The topics/themes addressed in these modules are well embedded in the descriptions of the modules. For example, the module Strategic Business Management addresses the topics 'Strategy', 'Organizational structure', 'Organizational culture', 'Leadership', 'HRM', 'Change', 'Power & Politics', 'Information Management', 'Quality Management' and 'International Business'. The module Strategic Facility Management contains knowledge and skills on the following four themes: 'International trends and developments of facility management, FM strategy, added value and business alignment', 'Strategic sourcing', 'Internal supply management' and 'Implementation of FM strategy, quality and performance management'. The panel states that the compulsory literature for each module meets the required level, content and orientation of that module. All necessary topics are addressed. The panel also confirms that the module descriptions offer a broad selection of recommended literature.

Research

The Critical Reflection (CR) states that research skills are key assets for strategic positions within the FREM field; research is seen as a tool to improve the professional practice combined with a quest for fundamental understanding. Research skills are the central issue of the module Academic Skills that is scheduled as a red line alongside the four professional modules. The module contributes to the development of competence 5 (see standard 1) by serving a foundation for academic thinking. Learning outcomes in this module are for example: 'to critically appraise the quality of research questions and hypotheses of a specific research', 'to correctly apply methods of data analysis in both quantitative and qualitative research' and 'to appreciate the importance of schools of thought within philosophy of science'. An important element of the module is the development of a research proposal for the thesis. The panel is pleased with the content of the module Academic skills. It enables student to obtain a solid understanding of research and simultaneously creates a solid foundation for the master thesis. Based on the teaching materials and the interviews with students and lecturers, the panel recognizes that the module is challenging, but rewarding in terms of the learning effect realized. The panel observed in the documents and interviews that the (academic) skills are also addressed and used in the professional modules. In this way, students apply their skills directly in practical situations that are addressed in the various contexts of the FREM field.

Aligned with the ambition of the Hospitality Business School, the FREM programme has the goal to strengthen the relation with research programmes. A taskforce investigates the possibilities of establishing a Saxion Graduate School, which, amongst others, would be responsible for the connection between research programmes and master programmes. In the meantime, FREM participates in a project to further connect researchers and so-called theme lecturers on the one hand and course directors, lecturers, students and the industry on the other hand. Dominant trends will be adopted, elaborated and incorporated in research and education in an intertwined way together with representatives of the industry. The final goal is to arrive at integral, theme-oriented, industry driven, experiential education and to contribute to knowledge development and innovations within the FREM field. Having discussed this development with lecturers, the course management and representatives of the FREM field, the panel states that the programme is well

positioned to realize this ambition. There is broad consensus on the developed process and all parties feel the need to contribute to this development. The panel noticed that, in the past, lecturers/researcher with specific knowledge and research expertise on a specific topic weren't always the guiding lecturers of students with a similar thesis topic. The panel is convinced that this will be strengthened with above mentioned measures.

Structure of the programme

Coherency

The introduction of the module descriptions shows the focus of the modules in a broad way, including their close connection with the other courses. The description of Strategic Building Management for example, expresses that a building manager constantly has to cope with changing needs of the building users and other stakeholders to continuously add value to the corporate business. As a result the module focuses, within a broader multidisciplinary scope, on forecast and anticipation on the impact of internal and external changes on the company's real estate property. The module has a strong relation with Strategic Business Management due to the required management principles to understand and assess the alignment between corporate strategies and real estate policies. Also, there is a strong connection with Facility Management with regards to national and international trends and developments in the FM processes. Finally, the module shows a strong connection with Strategic Assessment Management in terms of understanding the financial influences, valuation principles and budget theories relating to real estate property at corporate level. The panel has studied the coherency in the programme and concludes that this is well developed. The clear descriptions in the *Study Guide* contribute to the understanding of students that all elements are related and influence each other.

Didactical approach

In the didactical vision of the programme blended learning and the concept of 'flipping the classroom' plays an important role. The students' responsibility for their own learning process, communities of inquiry and scheduling formative assessments are cornerstones in the elaboration of the didactical approach. The interview with students taught the panel, that students appreciate the way the programme is designed. They informed the panel that preparation before classes is crucial in order to discuss the topics and therefore deepens their understanding of the underlying concepts. Part-time students particularly mentioned that it also enables them to learn from each other through the (practical) examples of their fellow students. During the interview with lecturers it became clear that the implementation of blended learning and flipping the classroom is still in progress. It's already on a satisfactory level, but it would be advisable to intensify the discussions outside of the classroom. The panel suggests to experiment with different online platforms. Besides this, the panel states that the programme is well designed. The panel is pleased with the selection and variation of working methods.

Admission requirements

Preconditions for admission are a relevant bachelor degree and - for non-Dutch students - sufficient English language skills (IELTS 6.0). As a relevant bachelor the Education and Examination Regulations (EER 2016-2017) stipulates facility management, real estate management or a related bachelor degree in an economic or technical field. In these cases, the course director decides on the relevance. Applicants for the part-time programme also need to have a full year of post-graduate work experience. The admission officer checks whether

students meet the requirements for admission. Dutch applicants are interviewed as part of the intake procedure; non-Dutch applicants can be requested to write a letter of motivation. The panel finds the admission policy well developed. The requirements are relevant and well set out in the *EER 2016-2017*. The panel suggests to conduct interviews with the international students as well, for instance through Skype.

Staff

The panel met an enthusiastic and involved team of lecturers. The full-time team consists of eight lecturers (0,7 FTE); the part-time team consists of nine lecturers (0,5 FTE). In addition, guest lecturers are hired for specific (FREM) topics. Most lecturers are employed by the HBS and are, apart from two lecturers, a member of the Master Team of the HBS. Two lecturers are self-employed and hired by the programme because of their specific expertise. Several additional Saxion lecturers, both from the HBS and other faculties of Saxion, and several additional self-employed lecturers are hired for supervision of the master thesis based on their specific knowledge and expertise. All lecturers have a master degree; a third holds a PhD. The programme aims to increase the number of PhD lecturers. Furthermore, the panel notices that all lecturers have relevant experience in an educational environment and/or in the professional FREM-field. Based on profiles of the lectures and the interview with them, the panel is convinced that the team is capable of facilitating students in obtaining the intended learning outcomes.

The course director also holds the team manager role and initiates plan, progress and performance interviews with the lecturers. As the programme works with relatively small appointments for lecturers, attention goes out to continuously align their activities. The panel is pleased to see that team meetings, regular programme meetings and thesis intervision meetings are held to coordinate and tune the educational activities. Moreover, the panel has seen that there is a strong focus on professionalization, with respect to content and teaching/assessment methods. For example, the programme was supported by a scientist during the transition and implementation of the didactical vision. Based on lesson observation, lecturers receive hands-on tips and tricks for new ways of teaching.

The interview with students showed the panel that they are pleased with the team of lecturers. They appreciate the lecturers' abilities to stimulate their learning and the lecturers' (expert) knowledge on FREM-topics.

Services and facilities

The master office, which is staffed by the course coordinator and the marketing and admission officer, is the central point of contact for FREM students. General facilities, such as classrooms and computer facilities are provided centrally by Saxion UAS. Additionally, the HBS offers students the facilities in which they can meet and converse with each other in an appropriate environment; both the HBS lobby and the HBS Business Centre are designed to accommodate this. As far as access to relevant literature is concerned, a collection of relevant literature is continually updated by the central library in close collaboration with the programme. Students have access to various online scientific databases, including the University of Greenwich's digital library.

Conclusion

The content of the modules is well derived from the intended learning outcomes, the competencies. An in detail description of each module is laid down in the *Study Guide*, which holds clear information on, for example, the learning goals, the context of the module, the lesson plan, examination and the literature (compulsory and recommended). Having studied the content of the programme, the panel is positive on the level and orientation.

Furthermore, the panel has seen that the programme is well designed. The didactical approach, with blended learning and flipping the classroom as central concepts, stimulates students to study actively leading to valuable discussions which deepen the understanding of students of the underlying concepts. The programme is coherent.

With regard to staff involved, the panel concludes that the team (full-time & part-time) is well capable of guiding students towards obtaining the intended learning outcomes. Their expertise and their experience in the FREM-field contributes to this. Despite their relatively small appointments, the panel has seen that the lecturers function as an enthusiastic and involved team. Furthermore, the panel is pleased with the professionalization activities.

In conclusion, the panel states that the FREM programme of Saxion UAS provides a strong, well-considered and rich teaching-learning environment. Based on the above mentioned considerations the audit panel assesses standard 2 as **good** (full-time and part-time).

Standard 3 Assessment

The programme has an adequate assessment system in place.

In this chapter the audit panel describes the findings, considerations and conclusions on the assessment system. The study programme receives the assessment **good** for this standard.

Assessments

The assessment system of the Saxion UAS FREM programme is laid down in the *Education and Assessment Policy* (2016). The third chapter of this policy focuses specifically on assessments and shows the alignment with the *EER*, *Saxion Toetsbeleidskader* and the FREM competency profile. The programme uses formative and summative assessments. Summative tests determine whether students have successfully completed the modules and the programme as a whole. The *Study Guide* (2016-2017) clearly explains which tests are included in each of the modules and how they are linked to the programme's competences and the module's learning outcomes. As stated above (standard 2), the panel is impressed by the descriptions in the *Study Guide*, including the information on examinations. The *Study Guide* provides students with detailed information about the examination.

The programme applies a mixture of assessments, all of them being individual tests. In total nine tests are coursework assignments, two tests are presentations and one test is a written exam. The assignments are a mixture of academic and professional tasks. This is well suited for a professional master programme, according to the panel. For the professional tasks the programme uses relevant cases from the FREM-field. In these tasks students design products that are in accordance with industry products at a strategic corporate level. The more academic tasks focus on critical thinking and argumentation. This involves writing essays about the student's position in a certain debate and/or applying theories to a case.

Having studied the assessments of the programme, the panel confirms the alignment with the learning outcomes and competences. For example, the module Strategic Asset Management contributes to the competences 1, 4 and 5. The module is assessed with two coursework assignments. In the first assignment, an economics portfolio (weight 30%), students write a report in which they reflect upon the economic context of a FREM organization from three angles: developments within the capital markets, the financial statements of the selected organization, and the planning and control mechanisms of this organization. In the second assignment, an investment report (weight 70%), students are requested (as a member of the company's asset management team) to write an investment analysis of a particular property. The investment report includes a property analysis, location analysis, market analysis, tenant analyses, financial forecasts, scenario analysis and a conclusion (substantiated asset management view on the risk-return profile of the property). The panel states that the assignments are well suited to assess students on the aligned competences and learning outcomes. The assignments are challenging and stimulate students to apply the knowledge and skills obtained throughout the module. These remarks of the panel are applicable for all assessments of the programme. Besides these positive remarks on the assessments, the panel offers two suggestions. The first suggestion concerns the types of assessments. Although the panel sees a mixture of assessments, the assessment

programme shows a focus on coursework assignments. The panel recommends to strengthen the variety of assessments in the programme. The second suggestion concerns the assessments linked to the thesis phase (see standard 4). The panel suggests to add/incorporate a final interview, an oral defense. This allows the examiners to clarify the choices the student made during the execution of their research.

Review of assessments

A standardized assessment form is used for all assessments. These forms contain a number of columns. The first column reflects the competence(s) that are assessed through a particular criterion. The second column contains the assessment criteria. In this column the criteria are mentioned that are used to assess the student's work, linked to points that assessors can reward for the corresponding criteria. In the third column, the assessors explain why students received a particular score. Besides these assessment criteria, each assessment form also includes side-constraints regarding language and communication. If students don't meet these side-constraints, they do not pass the test. Only one written exam has another assessment form as it is a business case purchased from a business university. Unfortunately, the form used for this test and specifically the feedback provided by the lecturer does not yet live up to the same standards as the other tests in the programme. Obviously, the panel urges the programme to address this issue.

Having studied all the assessment forms, the panel confirms that the programme has a solid assessment system. The criteria are well derived from the competences and the panel noticed that the assessors use the assessment forms as intended. In general, the panel finds the marks (and the underlying scores for the assessment criteria) realistic. Moreover, assessors give valuable feedback aligned with the criteria and supportive to learning by the students. The interview with the students showed the panel that they are satisfied with the (review of) tests and assessments. They are aware of the assessment criteria and the content is aligned with the topics addressed in the lessons. After the review of the assessments, students get the assessment forms with a motivated justification of the rewarded points. Only the criteria for the (single) written exam are less clear to students. As stated above, the panel urges the programme to address this issue.

Quality assurance of assessments

The system of assessments contains various quality assurance methods. The *Education and Assessment Policy* provides clear regulations for the development of the assessments. Within this procedure, attention goes out to validity, reliability and transparency. For example, when lecturers develop a test, they write an extensive table in which they describe and explain the most important reasons for including particular criteria in the assessment form. This means that they describe and explain for each assessment criterion how it relates to the Dublin descriptors and the master level of the FREM programme, how it relates to the competences and the learning outcomes and aim of the module. Furthermore, they explain how the fail/pass mark can be determined. For each criterion it is explained what score would be expected from a student to pass the test.

Besides the above, the Examination Board safeguards the quality of tests and assessments. In the redevelopment of the programme, the Examination Board was involved in the development of the new assessment policy (Education and Assessment Policy, 2016) and checked the quality of the assessments. Particularly, the Examination Board checked several theses to safeguard the level of the achieved competences. The annual reports showed the panel that the Examination Board performs well; the board is focused on assuring the quality of both interim and final examinations. Not only by checking the quality of assessments and theses, but also by appointing qualified examiners on the basis of a fixed set of criteria and organizing workshops. All lecturers are BKE-certified. The panel is impressed by the comprehensive and sound role of the Examination Board. The interview with members of the Examination Board confirmed this impression of the panel.

Conclusion

The panel concludes that the FREM-programme has a professional assessment system in place. The Education and Assessment Policy is the backbone of this system as it holds the regulations for appropriate testing and assessment. The assessments of the programme are clearly aligned with the competences, learning outcomes and aim of the modules. This also becomes clear in the Study Guide, which provides students with detailed information on the assessments for each module. The panel concludes that the assessments of the programme are challenging and stimulate students to apply the knowledge and skills obtained throughout the module. The assessment forms confirmed the quality of assessment to the panel. The criteria are in line with the goals of a module. Having studied various filled out assessment forms, the panel finds the marks given realistic and considers the provided feedback valuable and supportive to the students learning. Moreover, the assurance system for assessments is appropriate. The panel is impressed by the comprehensive and sound role of the Examination Board.

Based on above mentioned considerations the audit panel assesses standard 3 as **good**.

Standard 4 Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

In this chapter the audit panel describes the findings, considerations and conclusions on the achieved learning outcomes. The study programme receives the assessment **good** for this standard.

FREM Thesis

Students conclude the master FREM with a thesis in which they are given the opportunity to demonstrate their expertise in their chosen research area, both in writing (report) and in an oral defence (presentation) at the start of the thesis module. The thesis follows up on the research proposal that students constituted during the module Academic Skills. The learning outcomes of the thesis are as follows:

- To apply knowledge and academic skills acquired throughout the programme;
- To 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;
- To collect and analyse relevant data in a valid and reliable way;
- To translate findings into appropriate conclusions and recommendations;
- To deliver a professional contribution to the body of knowledge of the industry involved;
- To develop presentation skills in relation to the results of analysis in an academic, concise, informative and critical manner.

The thesis module consists of two types of assessments: a presentation (20%) and a thesis report (80%). The first assignment within the thesis is an individual presentation consisting of two parts: a presentation prepared in advance and a discussion with the lecturers. Students are expected to show how their thesis topic contributes to the field and how it links with the five competences of the FREM programme. The thesis report is a scholarly paper based on research performed individually into an aspect of the FREM working field. The rationale of this research is to fill a gap in existing knowledge. The students need to use sound research methods to obtain answers to the research questions and discuss the limitations of the research project. Students finalize their project by providing recommendations based on the knowledge collected.

The panel has studied fifteen thesis reports (including assessment forms) from students who graduated in the past two years. These reports all represented the (professional) master level of the programme. According to the panel, students show their ability to choose a relevant (FREM) topic and translate that into suitable research questions. The execution of the research is proper and sometimes even very good. The reports showed the panel that attention goes out to ensuring the quality of research (validity and reliability). In some cases the panel was impressed by the appliance of triangulation. Moreover, the reports showed the panel that students were able to come to solid conclusions and valuable recommendations. The panel was particularly impressed by some of the theses because they showed that these particular students were able to use

qualitative research methods at a level that would meet academic journal standards. Furthermore, the panel found the comments and marks given by the examiners realistic.

Performance in the FREM-field

In the interview of the panel with students and graduates, it became clear that the programme contributes to their performances as a FREM professional in the field. They told the programme lifted them from a more tactical and operational level to a strategic level. Their ability to present themselves in the strategic FREM-arena has been strengthened and their level of reasoning has improved. These positive remarks are supported by statements the Advisory Board made in their interview with the panel. They also value the strategic view of the graduates. Historically thesis reports also addressed more tactical and operational issues, but nowadays the focus is on strategic topics. For example, the Advisory Board told the panel that the topics evolved from topics like service desks to researching the effects of block chain on facility management in the future. The panel is pleased to hear the positive remarks of students, graduates and representatives of the FREM field.

Conclusion

The programme has demonstrated how the competences are assessed on the (professional) master level in the thesis-phase. The thesis reports that the panel studied, convincingly showed that graduates obtained the intended learning outcomes. The thesis reports reflect the ability of students to execute a research project in a proper – sometimes even good – way and so contributing to the knowledge on FREM topics. The interviews with students, graduates and representatives of the FREM field made it clear that the programme lifts students to a strategic level within the FREM-field. Based on the above mentioned considerations the audit panel assesses standard 4 as **good**.

General conclusion of the study programme

Assessments of the standards

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

Standard	Assessment
<i>Standard 1 Intended learning outcomes</i>	Good
<i>Standard 2 Teaching-learning environment</i>	Good
<i>Standard 3 Assessment</i>	Good
<i>Standard 4 Achieved learning outcomes</i>	Good

Considerations and conclusion

Weighing of the judgements with regard to the four standards is based on the assessment rules of NVAO:

- The final conclusion regarding a programme will always be 'unsatisfactory' if standard 1, 3 or 4 is judged 'unsatisfactory'. In case of an 'unsatisfactory' score on standard 1, NVAO cannot grant a recovery period.
- The final conclusion regarding a programme can only be 'good' if at least two standards are judged 'good'; one of these must be standard 4.
- The final conclusion regarding a programme can only be 'excellent' if at least two standards are judged 'excellent'; one of these must be standard 4.

In accordance to these assessment rules, the audit panel assesses the quality of the professional master programme Facility and Real Estate Management as **good**.

Recommendations

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

Standard 1

- Regarding competence 5, the panel noticed that it states 'judging and reflecting based on incomplete information *within a research context*'. The panel suggests to broaden this context by including real life business contexts as well.

Standard 2

- The panel stimulates the programme to continue the efforts to create a stronger relationship between the FREM study programme and research programmes within Saxion/HBS. Regarding the thesis phase, the panel stimulates the programme to use the opportunity of linking thesis topics of students to the available lecturers/researchers within HBS.

Standard 3

- The panel suggests to broaden the variety of (types) of assessments.
- The panel recommends to align the assessment form of the (single) written exam of the programme, with the other (standardized) assessment forms.
- The panel recommends the programme to add/incorporate a final interview/defence regarding the thesis.

Appendices

Appendix 1: Final qualifications of the study programme

1. Methodically recognising developments and trends in the external sector and integrating them into the FREM strategy.
2. Analysing primary processes and developing FREM strategy from them in an initiating and creative way showing entrepreneurial leadership.
3. Establishing, commanding and improving FREM processes and organisation processes to develop processes of change in a client oriented and efficient way.
4. Analysing the building portfolio aspects in the context of FREM processes and the FREM company environment and the company financial situation to enhance the added value of the facilities.
5. Judging and reflecting based on incomplete information within a research context and being able to underpin knowledge and rationale to specialist and non-specialist audiences.

Appendix 2: Study programme structure

Programme full-time

Term 1	Term 2	Term 3
Academic skills (8 EC)		Thesis (20 EC)
Strategic Business Management (8 EC)	Strategic Facility Management (8 EC)	
Strategic Building Management (8 EC)	Strategic Asset Management (8 EC)	

Programme part-time

Term 1	Term 2	Term 3
Academic skills (8 EC)		
Strategic Business Management (8 EC)	Strategic Building Management (8 EC)	Strategic Asset Management (8 EC)

Term 4	Term 5	Term 6
Academic skills (8 EC, continued)	Thesis (20 EC)	
Strategic Facility Management (8 EC)		

Appendix 3: Quantitative data regarding the study programme

Table 6.5: Number of students admitted into the programme since 2011

Year of entry	Part-time	Full-time EU	Full-time non-EU	Full-time total
2011	6	9	7	16
2012	12	9	8	17
2013	10	11	9	20
2014	13	22	7	29
2015	6	9	2	11
2016	4	14	2	16

Table 6.6: Study results and return of students admitted into the programme since 2011

Cohort full-time	Total	Award 2011 – 2012	Award 2012 – 2013	Award 2013 – 2014	Award 2014 – 2015	Award 2015 – 2016	Still in programme	Exit without award	Award within one year	Return
2011-2012	16	11	3				0	2	69%	88%
2012-2013	17		14	1			0	2	82%	88%
2013-2014	20			7	5		0	8	35%	55%
2014-2015	29				13	11	3	2	45%	83%
2015-2016	11					4	6	1	36%	NA
2016-2017	16						16	0	NA	NA

Cohort part-time	Total	Award 2011 – 2012	Award 2012 – 2013	Award 2013 – 2014	Award 2014 – 2015	Award 2015 – 2016	Still in programme	Exit without award	Award within two years	Return
2011-2013	6		5				0	1	83%	83%
2012-2014	12			7	4		0	1	58%	92%
2013-2015	10				3	3	3	1	30%	60%
2014-2016	13					6	5	2	46%	NA
2015-2017	6						6	0	NA	NA
2016-2018	4						4	0	NA	NA

This table is based on data of the HBS master office. Before the programme was redeveloped the programme's length used to be 14 months (full-time) respectively 26 months (part-time) and students used to finish their programme in October. Students that finished the old style programme in October are registered as if they finished the programme in the previous academic year in order to make the figures of the old-style programme comparable to the new style programme and to other programmes in general.

Table 6.7: Contact hours for students within the programme.

Programme	Clock hours per week	Clock hours per year
Full-time	14	270
Part-time year 1	7	200
Part-time year 2	7	70

This table is exclusive of the introduction week, optional courses and thesis supervision.

Table 6.8: Number and FTE of lecturers employed within the programme.

Programme	Number	FTE
Full-time	8	0.7
Part-time	9	0,5

This table is exclusive of the introduction week, optional courses and thesis supervision.

Table 6.9: Number and FTE of lecturers employed within the programme per student.

Programme	Number	FTE
Full-time	0.5	0,04
Part-time	2.25	0,13

This table is exclusive of the introduction week, optional courses and thesis supervision and based on the number of students in the academic year 2016-2017.

Table 6.10: Level of education of lecturers employed within the programme

Lecturers	Master	PhD
Percentage	100%	33%

This table is exclusive of the introduction week, optional courses and thesis supervision.

Appendix 4: Expertise members auditpanel and secretary

Naam (inclusief tituluur)	Korte functiebeschrijving van de panelleden
De heer dr. ir. F.W. Melissen	De heer Melissen is Lector duurzame bedrijfsmodellen bij NHTV Breda University of Applied Sciences, Academy of Hotel & Facility Management
De heer M.J. Reijven MBA MRICS RVGME	De heer Reijven is Managing Director Mayfield Asses & Property Management
De heer dr.ir. R. Beckers	De heer Beckers is hoofddocent opleiding Facility Management aan Hogeschool Arnhem Nijmegen
Mevrouw I.P.L. Janssen BBA	Mevrouw Janssen volgt aan Zuyd Hogeschool en Greenwich University de hbo- en wo-masteropleiding European Master Facility and Real Estate Management
De heer C.W. Isselman BA	De heer Isselman volgt de hbo-master Facility & Real Estate Management bij Saxion Hogeschool

Naam (inclusief tituluur)	Gecertificeerd d.d.	E-mailadres
De heer P. van Achteren BLL	23 september 2010	achteren@nqa.nl

Appendix 5: Programme for the site visit

Time	Place	Activity
08:45	Saxion University of Applied Science Please check in at the reception desk and ask for Saskia Koopman.	NQA panel arrives at Saxion
09:00	Saxion, room A2.20	Welcome by dean, course director and course coordinator <ul style="list-style-type: none"> • Derk Blijleven MBA, dean Saxion Hospitality Business School • Joris Verwijmeren MA, course director, lecturer Academic Skills and chair Study Programme Committee • Saskia Koopman BBA, course coordinator
9:15	Saxion, room B2.02	Presentation by the Study Programme Committee <ul style="list-style-type: none"> • Joris Verwijmeren MA, course director, lecturer Academic Skills and chair Study Programme Committee • Jan van den Hogen MSc RVGME MRICS, lecturer Strategic Building Management and member Study Programme Committee • Hester van Sprang MSc, lecturer Strategic Facility Management, Strategic Building Management and Academic Skills, member Study Programme Committee and member Examination Board
9:45	Saxion, room B2.02	NQA panel private meeting, coffee break, and viewing of coursework and thesis reports
11:00	Saxion, room B2.02	Office hours of the NQA panel Tour of the facilities for part of the NQA panel by the course coordinator <ul style="list-style-type: none"> • Saskia Koopman BBA, course coordinator
11.30	Saxion, room B2.02	Meeting with students and alumni <ul style="list-style-type: none"> • Ton de Boer, graduated in 2015, currently employed as lecturer at Hanze University of Applied Sciences and as commercial real estate valuer at De Boer Consultancy • Rianne Doornink, student full-time programme 2016-2017 • Coen Huijbers, student second year part-time programme 2015-2017 • Marc Hulshof, student part-time programme 2016-2018 • Thom van Maastrigt, student second year part-time programme 2015-2017 • Sharwin Mahadewsing, student full-time programme 2016-2017 • Gertjan Wessels, graduated in 2015, currently employed as management consult at Bureau de Bont
12:30	Saxion, room B2.02	NQA panel private meeting and lunch
13:15	Saxion, room B2.02	Meeting with lecturers <ul style="list-style-type: none"> • Feike Bergsma MSc, lecturer Strategic Facility Management • Paul Breman PhD, lecturer Strategic Business Management • Carla Brouwer MSc, lecturer Strategic Asset Management • Adrienn Erös PhD, coordinator Thesis, lecturer Academic Skills • Brenda Groen PhD, lecturer Academic Skills • Jan van den Hogen MSc RVGME MRICS, lecturer Strategic Building Management • Hester van Sprang MSc, lecturer Strategic Facility Management, Strategic Building Management and Academic Skills <p>Note: all attendees also supervise or assess master thesis projects.</p>
14:15	Saxion, room B2.02	Meeting with members of the Advisory Board <ul style="list-style-type: none"> • Bram Adema MSc, member Advisory Board • Doranne Gerritsen MSc, member Advisory Board • Paul Scholten MSc, member Advisory Board
14:45	Saxion, room B2.02	NQA panel private meeting and coffee break

Time	Place	Activity
15:00	Saxion, room B2.02	<p>Meeting with members of the Examination Board and members of the Study Programme Committee</p> <ul style="list-style-type: none"> • Lilian Alberts MSc, member Examination Board • Monique Boessenkool, student member Study Programme Committee • Rianne Doornink, student member Study Programme Committee • John van den Hof PhD, member Examination Board • Jan van den Hogen MSc RVGME MRICS, member Study Programme Committee • Marc Hulshof, member Study Programme Committee • Evelien Leurs MSc, chairwoman Examination Board • Hester van Sprang MSc, member Study Programme Committee <p>Note: Hester van Sprang is also member of the Examination Board but will only act as member of the Study Programme Committee during this session.</p>
15:30	Saxion, room B2.02	<p>Meeting with dean, course director and course coordinator</p> <ul style="list-style-type: none"> • Derk Blijleven MBA, dean Saxion Hospitality Business School • Joris Verwijmeren MA, course director, lecturer Academic Skills and chair Study Programme Committee • Saskia Koopman BBA, course coordinator
16:00	Saxion, room B2.02	NQA panel private meeting
16:45	Saxion, room B2.02	<p>Conclusions with drinks and bites</p> <ul style="list-style-type: none"> • All attendees of earlier meetings • Other interested colleagues (e.g. vice dean, course directors of other programmes, members of master team not involved in visit)
17:30		End of programme

Appendix 6: Documents examined

Next to the Critical Reflection and the theses of fifteen graduates (see appendix 7), the panel studied the following documents:

1. Education and Examination Regulations 2016-2017
2. Study guide 2016-2017
3. Education and Assessment Policy 2016-2020
4. Policy plan Themes as focus 2016-2020
5. Register of examiners 2016-2017
6. Members Study Programme Committee 2016-2017
7. Members Examination Board 2016-2017
8. Members Advisory Board 2016-2017
9. Overview of thesis students 2014-2016
10. Alumni research 2016
11. Report expert check regarding the level of qualification 2013
12. Report internal audit 2014
13. HBS Business Plan 2012-2016
14. HBS Year Plan 2014-2015
15. HBS Year Plan 2015-2016
16. HBS Year Plan 2016-2017
17. Team plan HBS Master Team 2014-2015
18. Team plan HBS Master Team 2015-2016
19. Team plan HBS Master Team 2016-2017
20. Annual report Examination Board 2013-2014
21. Annual report Examination Board 2014-2015
22. Annual report Examination Board 2015-2016

Appendix 7: Overview theses

Below an overview of the students whose theses have been examined by the panel. According to NVAO's rules only studentnumbers are included:

136290
408084
406657
341193
412210
411686
411467
404716
427011
428120
414119
427337
426637
413556
2408631

Appendix 8: Declaration of Comprehensiveness and Accuracy

Bladnummer 2

Declaration of completeness and accuracy of the information

concerning the assessment of study programme:
Facility and Real Estate Management

Organisation: Saxion

Date of visit: 20-01-2017

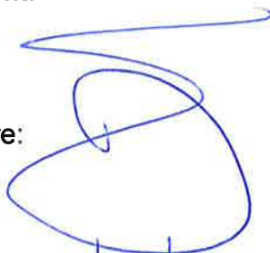
Undersigned: ... D.W.J. Büleren

representing the management of the above mentioned study programme,

in the position of: ... Dean Hospitality Business School
Saxion

declares that all information on behalf of the accreditation of the above mentioned study programme has been made available completely and accurately, *including information on alternative graduation routes that exist currently and/or have existed in the past 6 years*, so the visitation panel can form a properly fact-based judgement.

Signature:



Date:

14/12/2016