

**Zuyd University of Applied Sciences**  
**Facility and Real Estate Management**

**Limited Study Programme Assessment**



## Summary

In December 2016, the professional master degree programme Facility and Real Estate Management of Zuyd University of Applied Sciences (Zuyd UAS) was visited by an audit panel from Netherlands Quality Agency (NQA). The programme is offered in English. The audit panel assesses the quality of the study programme as **satisfactory**.

### Standard 1: Intended learning outcomes

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

The panel concludes that the intended learning outcomes, the five competences, meet the requirements regarding content, level and orientation. In close collaboration with their FREM partner programmes of Greenwich University and Saxion University of Applied Sciences, the FREM programme of Zuyd UAS makes sure the competences remain in line with those requirements.

Notwithstanding this positive conclusion the panel makes a few remarks concerning this standard. First the panel notes that the FREM programme of Zuyd UAS itself could have a more clear justification and understanding of the alignment between the competences and the Dublin descriptors. And secondly, the panel appreciates the involvement of an Advisory Board but also wants to recommend FREM to develop further discussions with the board and ensure that the full scope of the FREM-field is addressed.

### Standard 2: Teaching-learning environment

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

The content of the programme is clearly derived from the intended learning outcomes. Learning outcomes per module link the content of the modules to the five central competences. The literature and other study materials showed the panel that the programme is relevant, up-to-date and represents the (master) level. The linkage with the research programme Facility Management is valuable and the programme succeeds in establishing a connection between the research agenda and the thesis topics of students. The process for application to the programme is well developed, with relevant criteria for admission. Furthermore, the panel is positive about the qualifications of the lecturers and the use of guest lecturers. The study backgrounds of lecturers and their experience in the professional field and in research allow them to guide students in obtaining the intended learning outcomes.

Next to these positive remarks, which showed the panel that the teaching-learning environment meets the standards for generic quality, the panel has a couple of more critical remarks throughout this chapter that could help strengthen the quality of the programme. These remarks concern the attention in the curriculum for academic skills, the intended synthesis of facility management and real estate management, the level of English, the qualifications and focus of lecturers on testing/assessment (including feedback), and the panel signals a chance to strengthen blended learning linked to the use of online platforms.

### **Standard 3: Assessment**

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

The panel concludes that the assessments of the programme are suitable for determining if students obtained the intended learning outcomes and therefore meet the required level of competence. The study guide and other documents provide information about the assessments to students. The panel states that the assignments are well suited and challenge students to take stands on strategic issues that are relevant in the FREM domain. Furthermore, the programme offers a variety of types of assessments, however with a clear focus on coursework assignments. Based on studied student work (papers, course assignments) the panel is convinced of the generic quality.

Apart from this conclusion the panel made several critical remarks concerning the review of the assessments. The programme should specify the assessment criteria, eliminate the possibility of compensation between assessment criteria, strengthen the feedback for students, improve the administration and strengthen the safeguarding of the quality of tests. The fact that the assessments and the outcomes meet the criteria of generic quality, combined with the fact that the programme management acknowledged the observations of the panel and showed that first improvements were put in motion, leads to the assessment of satisfactory.

### **Standard 4: Achieved learning outcomes**

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

In a thesis students show they obtained the intended learning outcomes. The thesis builds on a research proposal students created during the academic skills module. Based on fifteen examined theses of graduates the panel concludes that the overall level is sufficient. Relevant (FREM) topics are addressed and the execution of the research is mostly limited but sound, leading to adequate conclusions and recommendations. With regard to the research skills, the panel made some remarks. Based on above mentioned considerations the audit panel assesses standard 4 as **satisfactory**.

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## Introduction

This is the assessment report of the professional master degree programme Facility and Real Estate Management offered by Zuyd University of Applied Sciences (Zuyd UAS). The assessment was conducted by an audit panel compiled by NQA, commissioned by Zuyd 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 December 7, 2016.

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)

C.W. Isselman BA (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, *March 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	M Facility and Real Estate Management
Orientation and level study programme	hbo; master
Degree	Msc
Number of study credits	60 EC
Location	Maastricht
Variant	Fulltime, 12 month's programme
Language used	English
Registration number in CROHO	70144

<i>Administrative institutional data</i>	
Name institute	Zuyd Hogeschool / Zuyd University of Applied Sciences
Data institutional contactperson	De heer G.P.M.G. Kamps; <a href="mailto:frits.kamps@zuyd.nl">frits.kamps@zuyd.nl</a> De heer J. van Duren; <a href="mailto:joop.vanduren@zuyd.nl">joop.vanduren@zuyd.nl</a>
<i>E-mail address for copy of application</i>	
<i>Status institute</i>	Unfunded programme within a funded institute
<i>Result institute audit</i>	Positive (2016)

### About the (development of the) FREM programme

Since the last and initial accreditation in 2011, the professional master of Facility and Real Estate Management, has been redeveloped. The FREM programme of Zuyd UAS formulates the dominant reason for this redevelopment as follows:

*“The integrated approach of Facility and Real Estate Management (FREM) doesn’t have a long tradition. Housing issues, cleaning, catering and security have been managed in an ‘isolated’ way for decades. And the management focus was purely on cost(savings). Recently FREM has been discovered as a domain that can add value to concern goals and the aims of stakeholders. The next step was to see the synergy potential that arises whenever FREM will be managed in an integral way. Nowadays its common acknowledged that fit for use environments can be achieved by integrating space, people, processes and technology. And these fit for use environments can be true value enablers for the business or activities they facilitate.”*

A second reason is more pragmatic: the 14 month and 72 EC programme, didn’t smoothly fit in within the Dutch system. The new programme of 60 EC (12 months) is more aligned to this.

In close collaboration with their partner institutes (Greenwich University and Saxion UAS), the FREM-programme of Zuyd UAS redeveloped the programme, with regard to:

- A more integrated approach: issues like information management, quality management, economics and project management are embedded in the four remaining professional content modules of the programme;
- Strengthening of the didactical concept: broader application of blended learning and flipping the classroom to increase the learning effects.
- Intensifying the process to achieve an approved proposal for the master thesis.

An overview of the study programme can be found in Appendix 2.

### **Double degree**

Graduates of the FREM programme at Zuyd UAS also obtain an Msc-degree of Greenwich University. In order to align the (educational) ambitions of both institutes a *Programme (approval) document* has been established. This document contains the objectives, the structure of the programme, course descriptions, the set of knowledge and skills, types and weight of assessments e.g. The approval document is signed by both institutes to ensure the alignment of the programmes and to safeguard that graduates justly receive both degrees.

## 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 **satisfactory** for this standard.

### **The aim of Facility and Real Estate Management**

The professional master Facility and Real Estate Management (FREM) focuses on the synthesis of the fields of facility management and real estate management. The programme prepares students to fulfil management positions at a strategic level in the facility and real estate industry in both profit and non-profit organisations. The FREM programme provides the students skills and knowledge allowing them to act in an international and professional environment in which strategies and processes are developed and changes are managed all with a strong focus on added value. An investigative attitude, analytical skills and the ability to create effective solutions taking environmental, economical, physical and social circumstances into account are essential skills for students to obtain.

The panel judges the aim of the programme to be well suited for a professional master programme such as Facility and Real Estate Management. The profile has been drafted in close collaboration with Greenwich University and Saxion University of Applied Sciences. Furthermore the profile has been discussed with the Advisory Board representing the professional field.

### **Five FREM Competences**

Aligned with Greenwich University and Saxion University of Applied Sciences, the FREM programme of Zuyd University of Applied Sciences 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.

These competences are accompanied by a set of intellectual skills: (1) critical thinking, (2) building, developing and defending hypotheses, (3) solid reasoning without fallacies, (4) self

reflection and (5) critical appraisal of published materials. In addition a set of subject practical skills: (A) economic analysis technologies, (B) finding and selecting relevant published materials, (C) communication skills and (D) research skills are required from the students.

The audit panel confirms that the intended learning outcomes are solidly aligned with the partner institute Greenwich University and meet the requirements regarding content and orientation. Regarding the (master) level of the competences the panel is concludes that the programme meets the relevant Dublin descriptors. The panel notes that the documentation provided to both the panel and (future) students by Zuyd University could contain a more clear and explicit justification of this alignment.

### **Advisory Board**

To ensure alignment with the requirements of the professional field, FREM has established an Advisory board. Twice a year the Advisory Board reflects on the quality of the programme and members of the board are involved in feedback-sessions regarding research proposals of students and study two theses each. The panel appreciates this connection to the professional field. However, the documentation and the meeting with the representatives of the Advisory Board showed the panel that the level of actual involvement could be improved. The programme could instigate and ensure more in-depth discussions with the Advisory board and ensure that the composition of the board represents the full scope of the FREM-field.

### **Conclusion**

The panel concludes that the intended learning outcomes, the five competences, meet the requirements regarding content, level and orientation. In close collaboration with their FREM partner institutes (Greenwich University & Saxion University), the FREM programme of Zuyd University makes sure the competences remain in line with those requirements.

Notwithstanding this positive conclusion the panel makes a few remarks concerning this standard. First the panel notes that the FREM programme of Zuyd University itself could have a more clear justification and understanding of the alignment between the competences and the Dublin descriptors. And secondly, the panel appreciates the involvement of an Advisory Board but also wants to recommend FREM to develop further discussions with the board and to ensure that the full scope of the FREM-field is addressed.

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

## 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 **satisfactory** for this standard.

### Content of the curriculum and alignment with competences

The curriculum consists of six modules that in total represent 60 EC. Before the concluding thesis of 20 EC, students have to pass five modules of each 8 EC. Four of these modules can be described as the professional core (content modules):

1. **Strategic Business Management** which zooms in on leadership and business strategies and their impact on primary and supportive processes. Students have to consider how the (organization of) supportive processes can contribute to organizational goals in a balanced way;
2. **Strategic Building Management** paying attention to long term real estate strategies, performance measurement of specific building and development and improvement plans aiming to increase building performance for its users;
3. **Strategic Asset Management** focuses on the financial perspective of a real estate portfolio. The central question in this module is how the portfolio performance (from a financial perspective) can be improved. What measures should be taken, and why and what effects/results can/will be caused with these measures?
4. **Strategic Facility Management** which focuses on increasing added value that housing and facilities can cause by smart 'make, buy or ally' choices, best value procurement, matching demands and deliveries (integrative and coherent set of service lines) and a contract- and supplier management approach.

In addition to this professional core, the programme contains a module focused on **Academic Skills**. The FREM programme sees academic skills as a core skill for senior professionals in the FREM field. The objective of this module is to educate students on research methodology and to let them apply these insights in their (thesis) proposal. The module stimulates students to develop critical thinking skills and to apply these in the whole FREM programme. Abstract thinking, solid reasoning and proper use of sources have to be recognisable within every strategic advice that students develop.

To ensure the alignment of the content of the modules with the five competences, the programme uses learning outcomes. Each module has its own set of learning outcomes which are linked to the competences. For example, the module strategic business management contributes to obtaining competence 2 through the following learning outcomes: 'to critically review organisation structures, judge, reflect on, design and show effective leadership within changing organisations and/or organisation environments' and 'synthesise relations between organisational goals and supportive and control processes'.

The panel feels that the programme consists of relevant modules that allow students to obtain the intended learning outcomes. Learning outcomes guide the content of each module and ensure that all competences are met at a satisfactory level by students throughout the programme. Furthermore the panel is satisfied with the study materials. The literature for each module is relevant, up-to-date and accurately represents the level of the programme.

Next to these positive remarks the panel would like to point out two aspects that could further improve the programme. First, the panel sees that it is not always easy to get students on the intended academic level (competence 5). The panel feels that more intensive guidance on this topic is needed. With the recent redevelopment of the curriculum (see: about the programme) there is more time in the content modules to address relevant academic learning outcomes. This integration could be refined to contribute to the academic skills of students. The second aspect relates to the intended synthesis between Facility Management and Real Estate Management. According to the panel various study materials and assignments show that this topic is addressed to a satisfactory level. The panel sees this synthesis, the integration of FM and RE, as one of the distinctive characteristics of the programme and wants to stimulate the programme to intensify this feature, especially in relation to the thesis stage of the programme.

### **Research programme Facility Management**

Further to the afore mentioned (educational) goals on and execution of academic skills, the panel points out that the programme has a solid connection to the research programme Facility Management. FREM stimulates that the (thesis) topics of students are aligned with the research agenda of the knowledge networks that participate in this research programme. In 2015-2016 five out of seven students chose a topic that fits with the research agenda. The panel finds this an admirable result, knowing that due to unforeseen and unfortunate circumstances the research programme effectively runs only for about one year now.

### **Design of the programme**

With the redevelopment, the programme broadened the application of 'blended learning' and especially 'flipping the classroom'. This didactical concept stimulates students to prepare themselves before classes take place. Students, for example, have to search for an academic paper, study it and prepare a pitch of a few minutes in which they present the highlights of the studied paper. Classes start with these pitches, followed by brief discussions and then the item will be elaborated on in an interactive session. The course outlines, that are part of the study guide, show for each module which working methods are being used. Strategic Facility Management for example uses a combination of lecturers, workshops, seminars, case studies, in-class exercises and e-learning (including flipping the classroom). The panel is pleased with the selection and variation of working methods. It stimulates interaction and a proactive contribution of students. The interview with students showed the panel that students value the setup of classes. It stimulates involvement of all students and the pitches and examples students brought up are often based on their own professional practice.

## **Admission requirements**

Applicants for FREM are accepted all year round. Prospective candidates will undergo a personal interview (if necessary by webcam) and are selected based upon their academic transcripts, level of English, references and motivation letter. Among other more practical documents, the applicant should at least provide a certificate of the University, which states that the applicant has completed a Bachelor Degree Programme (Facility Management, Real Estate, Business Administration, Hotel Management, International Business & Management Studies and Built Environment), of at least 180 EC. Another requirement is an English proficiency certificate (TOEFL: 550, TOEFL: 213 Computer-based, IELTS: 6,0, 79-80iBT or Cambridge Advanced Exam or an alternative certificate of C1 level issued by the University's academic secretary).

The panel notes that the application process is well developed, with relevant criteria for admission. In general, students are satisfied with the admission policy. For some students the requirements for English weren't completely clear and for some the (English taught) programme is quite demanding. Having heard the students and having studied various written exams of students, the panel suggests offering a non compulsory English course for students.

## **Staff**

The FREM team consists of five leading lecturers (1 position is vacant). All leading lecturers have a master degree and relevant experience in an educational environment and/or in the professional FREM-field. The leading lecturer for Academic Skills is an experienced PhD lecturer, working for both Zuyd UAS and Maastricht University. The course director also has a PhD degree and has broad experience in the FREM field. Next to these leading lecturers, the programme uses of a broad selection of guest lecturers for the four content modules. An overview showed the panel that these guest lecturers are well assigned to specific subjects of modules. Facility Control and Sustainability are examples of topics taught by guest lecturers.

Students are satisfied with their lecturers. Students appreciate the responsivity of lecturers and value the professional orientation they establish. The panel has studied the profiles of the lecturers and is positive about their qualifications. The panel is convinced that this team is capable of providing the education needed to obtain the intended learning outcomes. This being said, the panel highlights one issue for further improvement in the qualifications of lecturers: assessment. FREM/Zuyd UAS should facilitate BKE and SKE certifications to ensure that the lecturers are better suited to develop, execute and ensure (the quality of) assessments. Furthermore, FREM/Zuyd UAS should continue to build a culture in which providing explicit feedback on all assessment criteria is the norm. Although the panel recognises that the team spirit of the educational team is on a sufficient level, the audit panel believes there to be room for improvement. The panel feels that the involved members could strengthen to see the programme as a shared responsibility.

## **Services and facilities**

All classes take place in the Hotel Management School in Maastricht. A specific classroom with up to date facilities is available to the programme every Thursday and Friday. Students have access to the library of Zuyd UAS, online and to the hardcopy collection. In addition, their

Greenwich account allows them to search in the worldwide database of university libraries with free access to a broad variety of academic journals.

In 2015, FREM developed their own Blackboard environment on which they publish assignments, sheets (ppt) and other study materials. The programme itself notes in the CR that the use of Blackboard could have a more systematic character which it wants to realise in the next few years. The panel stimulates the use of an online platform for students and notes that the blended learning approach benefits from strengthening this aspect.

## **Conclusion**

The content of the programme is clearly derived from the intended learning outcomes. Learning outcomes per module link the content of the modules to the five central competences. The literature and other study materials showed the panel that the programme is relevant, up-to-date and represents the (master) level. The linkage with the research programme Facility Management is valuable and the programme succeeds in establishing a connection between the research agenda and the thesis topics of students. The process for application to the programme is well developed, with relevant criteria for admission. Furthermore, the panel is positive about the qualifications of the lecturers and the use of guest lecturers. The study backgrounds of lecturers and their experience in the professional field and in research allow them to guide students in obtaining the intended learning outcomes.

Next to these positive remarks, which showed the panel that the teaching-learning environment meets the standards for generic quality, the panel has a couple of more critical remarks throughout this chapter that could help strengthen the quality of the programme. These remarks concern the attention in the curriculum for academic skills, the intended synthesis of facility management and real estate management, the level of English, the qualifications and focus of lecturers on testing/assessment (including feedback), and the panel signals a chance to strengthen blended learning linked to the use of online platforms.

Based on above mentioned considerations the audit panel assesses standard 2 as **satisfactory**.



## 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 **satisfactory** for this standard.

### Assessments

The *Education and Examination Regulations* (EER) and the *Approval Document* set guidelines for the quality of assessments. The EER upholds the formal rules. It defines the basic structure of assessments and provides regulations on topics like: marks, resits, appeal and fraud. The approval document defines the guidelines for the content of the modules and in effect for the corresponding assessments. These guidelines are adopted in the EER as well.

The course director of the programme sets the basic principles for the design of the assessments, which are elaborated in more detail by the module lecturers. This contributes to a consistent set of assignments that are related to the intended learning outcomes (rough design) and the specific content of modules (elaboration). The *EER* and the *study guide* contain course descriptions that describe the assessments for each module. In this way students are provided with the information about the assessments. For example, the course description of strategic business management shows that the module is assessed by two assignments: a written exam and a coursework assignment (approx. 5000 words). Both components provide 50 percent of the total mark for this module.

Having studied a broad variety of assessments, the panel confirms that the assignments are sufficiently aligned with the learning outcomes and competences. For example, the written exam within the module Strategic Business Management consists of a case that contains several of the management issues addressed in the module. Based on this specific case (with regard to situation, culture and management style) students have to answer five challenging questions and motivate their personal choices for solutions with solid reasoning, based on the discussed (management) schools of thought. Within Strategic Facility Management, students have to write a paper in which they have to elaborate on how the added value of FM can be increased. The panel states that the assignments are well suited and challenge students to take stands on strategic issues that are relevant in the FREM domain. Although the panel sees that the assessment programme provides different types of assessment (written exams, presentations), the panel states that there is an emphasis on course assignments. A justification for this can be found in the fact that course assignments show the ownership of the gained knowledge and student skills developed during the module. And it shows the capability of students to apply the discussed theories, concepts and models.

## Review of assessments

The CR notes that in accordance with the competences and learning outcomes, assessment criteria are developed. During the site visit, the panel studied a variety of assessments taken by students and assessed by the assessors. This leads to a couple of critical remarks. But first, the panel wants to highlight that with its above mentioned (positive) findings on the (system of) assessments and the conclusion that the outcomes (based on studied papers, exams and coursework assignments of students) are overall sufficient, these remarks should be seen as room for improvement. And, in effect, can be seen as a recommendation to the programme.

Each assessment is reviewed (assessed) by the lecturer of the module. In some cases, a second reviewer is embedded in the assessment process. The review of the assessments is based upon assessment criteria that are set with the development of an assignment. Students are being informed of these criteria in classes, but they don't understand completely the exact weight of them. Having studied the assessment forms, the panel finds that the programme could strengthen the assessment criteria. In line with findings of the programme itself, the panel would encourage further specification of the criteria. For some assessments, the criteria are rather abstract and therefore generic. For one of the assignments the panel found that the assessor uses the assessment form of the thesis, while other learning outcomes are set for this module. Criteria aligned with these outcomes should be developed. The panel also finds that the programme should eliminate the possibility of compensation between assessment categories within an assignment.

Another concern of the panel is that some reviews showed no differentiation in the scores of the categories of the assessment form. For example, all items on the form were awarded with six points, whereas the panel saw clear distinctions in the capability of the student on the assessment criteria. Discussion on this topic with assessors, leads to the conclusion that in these cases the professional judgement of assessors of the total assignment was translated to the various assessment categories. Although the panel stimulates professional judgement and feels that assessors should match this with the outcome of the assessment form, assessors should commit to the criteria. Combined with the finding that the feedback of assessors on the assessment forms in many cases was absent or at most limited, the panel found it difficult to track the meaning of given points for certain assessment categories. In addition to specifying criteria, the panel suggests investing in giving (written) feedback. This could improve the learning effect for students and strengthen the justification of the awarded points. The interview with students showed the panel that they value receiving sound written feedback on their assignments.

A final point of attention concerns the administration of assessments. During the audit and the process of studying documents it became clear that the administrative process around assessments could be strengthened. This specifically refers to the thesis and concerns for instance the archiving of the written feedback and scores per criterion of individual assessors as well as the discussions between assessors leading to decisions on the final scores and feedback per criterion to be communicated to students.

## Exam and test committee

Based on the above mentioned remarks regarding the review of assessment, the panel states that the exam and test committee should improve the safeguarding of the quality of interim and final tests. Based on the annual report of the exam board and the interview with its members, the panel concludes that the exam board is aware of the improvements that have to be made. An improvement plan has been established to strengthen their assuring role. Taking care of BKE qualifications of lecturers is one of the actions the committees pointed out they aim to make happen. As to their own role, the panel suggests that the committees take more samples of taken tests and redevelop the design process of assessments to include a formal go/no go (approval) for finalizing the assessments.

## Conclusion

The panel concludes that the assessments of the programme are suitable for determining if students obtained the intended learning outcomes and therefore meet the required level of competence. The study guide and other documents provide information about the assessments to students. The panel states that the assignments are well suited and challenge students to take stands on strategic issues that are relevant in the FREM domain. Furthermore, the programme offers a variety of types of assessments, however with a clear focus on coursework assignments. Based on studied student work (papers, course assignments) the panel is convinced of the generic quality. Apart from this conclusion the panel made several critical remarks concerning the review of the assessments. The programme should specify the assessment criteria, eliminate the possibility of compensation between assessment criteria, strengthen the feedback for students, improve the administration and strengthen the safeguarding of the quality of tests. Based on above mentioned considerations, combined with the fact that the programme management acknowledged the observations of the panel and showed that first improvements were put in motion, leads to the assessment of **satisfactory**.

## 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 **satisfactory** for this standard.

### **Process of graduation**

Students conclude their master FREM with a thesis. In their thesis students show that they can execute adequate research in the field of FREM, resulting in sound conclusions and meaningful recommendations. Preparation for the thesis starts during the module Academic Skills. This module concludes with a research proposal. During the thesis (phase), the goal is to execute the research designed in the proposal stage and the presentation of the research process and its results. The thesis is guided by a lecturer with relevant experience on the topic of the thesis. At the end of the thesis phase a second reader is introduced in the process. Both readers assess the thesis report, and when both assessors agree, this will lead to a pass or fail. In case of disagreement on the outcome/result a third reader will be assigned.

### **Review of the thesis by the panel**

The panel examined and evaluated fifteen thesis reports (including the assessment forms). The theses were selected from a list of graduates of the past two years. An overview of the complete selection is included in appendix 7.

The examination of the fifteen theses convinced the panel that students obtain the intended learning outcomes. In general, the panel concludes that the theses show that the graduates are capable of selecting a relevant (FREM) topic and are able to translate this into a solid and appropriate research design. The execution of the research is mostly limited but sound, leading to adequate conclusions and recommendations. The panel acknowledges that some theses are of above average quality. In these projects, students showed thorough theoretical knowledge and the capability to apply this in a valuable manner within their professional context. On the other hand, the panel did come across two theses that seemed to lack a solid foundation with respect to the selected research methods, and suffered from limited analytical elaboration the quality of reasoning. Based on the feedback and the given marks on the assessment forms, the panel concludes that the involved assessors did not adequately pick up on these shortcomings of these theses. During the site visit, the panel addressed these observations with the assessors, the exam board and the course director. Based on these interviews, especially with the course director, the panel is confident that these issues will be addressed properly. Everything considered, the panel finds the overall level of the studied theses, especially more recent ones, sufficient.

## Conclusion

In a thesis students show they obtained the intended learning outcomes. The thesis builds on a research proposal students created during the academic skills module. Based on fifteen examined theses of graduates the panel concludes that the overall level is sufficient. Relevant (FREM) topics are addressed and the execution of the research is mostly limited but sound, leading to adequate conclusions and recommendations. With regard to the research skills, the panel made some remarks. Based on above mentioned considerations the audit panel assesses standard 4 as **satisfactory**.



# 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>	Satisfactory
<i>Standard 2 Teaching-learning environment</i>	Satisfactory
<i>Standard 3 Assessment</i>	Satisfactory
<i>Standard 4 Achieved learning outcomes</i>	Satisfactory

## Considerations and conclusion

Weighing of the judgements with regard to the four standards is based on the assessment rules of NVAO. The audit panel assesses the quality of the professional masters degree Facility and Real Estate Management of Zuyd University of Applied Sciences as **satisfactory**.





# Recommendations

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

## Standard 1

- The panel encourages the FREM programme to improve the actual involvement of the Advisory Board. The programme could instigate and ensure more in-depth discussions with the board and ensure that the full scope of the FREM-field is addressed.

## Standard 2

- The panel stimulates the programme to refine the (integrated) contribution to academic skills within the four content modules.
- The panel sees the synthesis of facility management and real estate management as the distinctive characteristic of the programme and stimulates the programme to intensify this feature, especially in relation to the thesis stage of the programme.
- The panel suggests offering a non compulsory English course for students.
- The panel recommends to strengthen the qualifications of lecturers/assessors regarding tests/assessments to ensure that that better suited to develop, execute and ensure (the quality) of assessments.
- The panel signals a chance to strengthen blended learning linked to the use of online platforms.

## Standard 3

- As noted in the chapter that addresses standard 3, the panel makes several critical remarks concerning the review of assessments. The panel urges the programme to (further) specify the assessment criteria, eliminate the possibility of compensation between assessment criteria, strengthen the feedback for students, improve the administration and strengthen the safeguarding of the quality of tests.

## Standard 4

- The aforementioned recommendations are also meant to lead to a further improvement of the quality of the theses of graduates. The panel is convinced that, for example, the refined education on academic skills and the intensification of the synthesis of facility management and real estate management will sort effect for thesis reports in the future.



# Appendices



## **Appendix 1: Final qualifications of the study programme**

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.

## Appendix 2: Study programme structure

Programme fulltime		
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)	

### Appendix 3: Quantitative data regarding the study programme

item	2012 - 2013	2013 - 2014	2014 - 2015	2015 - 2016
Return	10 participants; 7 out of 10 graduated within 14 months	9 participants; 8 out of 9 graduated within 14 months	10 participants; 6 out of 10 graduated within 14 months	7 participants; 3 out of 7 graduated within 12 months
Quality of lecturers	2 PhD 8 professional Master Several guest lecture	2 PhD 9 professional Master Several guest lecture	1 PhD 10 professional Master Several guest lecturers	2 PhD**** 6 professional Master Several guest lecturers
Student – lecturer ratio				0,4 fte on 7 students***
Weekly Contact hours	Average: 10 hours/week**	Average: 10 hours/week**	Average: 10 hours/week**	Average: 11 hours/week**

\*\* this figure doesn't include the Thesis phase

\*\*\* this information is only requested for the most recent academic year

\*\*\*\* Joop van Duren and Math Heckman

#### Appendix 4: Expertise members audit panel and secretary

<b>Naam (inclusief tituluur)</b>	<b>Korte functiebeschrijving van de panelleden</b>
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
De heer C.W. Isselman BA	De heer Isselman volgt de hbo-master Facility & Real Estate Management bij Saxion Hogeschool
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

#### secretary

Naam (inclusief tituluur)
De heer P. van Achteren BLL



## Appendix 5: Programme for the site visit

<b>Tijdstip</b>	<b>Thema</b>	<b>Deelnemers (incl. panel)</b>
09.00 – 09.30 uur	Korte intro d.m.v. 20 minuten presentatie en toelichtende vragen	Ad Smits, Ton Stekelenburg en Joop van Duren
09.30 – 11.00 uur (waarvan 09.30 – 10.00 uur spreekuur)	Lees en overlegtijd	Visitatiepanel
11.00 – 12.00 uur	Gesprek met studenten & alumni	Philippe Vrancken, Wesley van Onna, Dennis Iedema, Marcel Commandeur, Manon van den Boorn, Koos Eggels, Ward Hamers
12.00 – 13.00 uur	LUNCH	
13.00 – 13.45 uur	Gesprek met Advisory Board	Rene van der Burgt, Pancras Evers, Joh Hoen, Eric Klekamp
13.45 – 14.30 uur	Gesprek met management	Ad Smits, Ton Stekelenburg, Joop van Duren
14.30 – 14.45 uur	BREAK	
14.45 – 15.45 uur	Gesprek thesisbegeleiders en docenten	Pepijn Happel, Matt Heckman, Nico Pelt, Dion Mevis, Richard Verboeket
15.45 – 16.15 uur	Gesprek met lectoraat	Joop van Duren
16.15 – 16.30 uur	BREAK	
16.30 – 17.00 uur	Examencommissie	Henny Steinen, Dion Mevis
17.00 – 17.45 uur	Intern overleg	Visitatiepanel
17.45 – 18.00 uur	Terugkoppeling	Ad Smits, Joop van Duren, Elly Theunissen, Olaf van Nugteren

## Appendix 6: Documents examined

- Critical Reflection Master FREM, Zuyd UAS
- Programme Approval document
- Education and Examination Regulations (EER) 2015-2016
- Education and Examination Regulations (EER) 2016 – 2017
- Studyguide 2015-2016
- Studyguide 2016 – 2017
- Written exams Strategic Business Management 2015 (case, questions and answer indications)
- Assignments Strategic Building Management
- Assignments Strategic Facility Management
- Assignments Strategic Asset Management
- Renewed Programme
- Annual Report Examination Committee
- Assessment form Thesis
- Proposal demands
- Overview qualifications FREM staff
- Toetsoverzicht Master FREM
- Conversietabel UK – NL
- Verslag Advisory Board feb 2016
- Theses of fifteen graduates (see appendix 7)

## Appendix 7: Summary theses

Below a summary of the students whose theses have been examined by the panel. According to NVAO's rules only student numbers are included.

1532707  
1043935  
1562312  
1470418  
1464000  
1465325  
2010198  
928402  
9620151  
943622  
1031155  
952516  
908371  
845434  
1337033

## Appendix 8: Declaration of Comprehensiveness and Accuracy

### Verklaring van volledigheid en correctheid van de informatie

Betreffende de visitatie van de opleiding:

Facility and Real Estate Management

Instelling: Zuyd Hogeschool

Visitatiedatum: 7 december 2016

Ondergetekende:



vertegenwoordigend het management van de genoemde opleiding,

in de functie van:



verklaart hierbij dat alle informatie ten behoeve van de visitatie van de genoemde opleiding in volledigheid en correctheid ter beschikking wordt gesteld, *waaronder informatie over alternatieve afstudeerroutes die momenteel en/of gedurende de afgelopen 6 jaar (hebben) bestaan*, zodat het visitatiepanel tot een op juiste feiten gebaseerde oordeelsvorming kan komen.

Handtekening:



Datum:

