

Assessment report
Limited Framework Programme Assessment

Master Earth and Environment

Wageningen University

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1. Executive summary

In this executive summary, the panel presents the main considerations which led to the assessment of the quality of the Master Earth and Environment programme of Wageningen University, which has been assessed according to the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands, as published on 20 December 2016 (Staatscourant nr. 69458).

The panel is positive about the objectives of the programme to study the structures and patterns at the Earth's surface and the physical, chemical and biological processes in the hydrosphere, atmosphere and biosphere parts of the Earth Sciences field, to offer students quantitative methods and techniques to investigate and analyse these processes and to train them to do interventions and to assess the consequences. The panel appreciates students being offered four distinct specialisations to deepen their knowledge and skills within the programme domain in one of these specialised fields.

The programme objectives correspond to domain-specific reference framework for the Earth Sciences programmes. The panel welcomes the efforts by the joint Earth Sciences programmes in the Netherlands to draft this framework and regards this to be the sound and up-to-date description of the domain.

The panel welcomes the wide range of positions and types of organisation students are prepared for. The panel is positive about the programme maintaining regular contacts with the professional field and with international experts in this domain.

The programme intended learning outcomes correspond to the programme objectives, are complete and conform to the master level.

The panel is positive about the entry requirements and about the admission procedures adopted by the programme. As the panel notes discrepancies between knowledge and skills of incoming students, the panel advises to specifically pay attention to the prior education of foreign students.

The curriculum for each of the specialisations meets the programme intended learning outcomes. The courses are up to standard. The panel appreciates the curriculum educating in-depth specialisation subjects as well as research methods and techniques to analyse these subjects. Academic skills are addressed appropriately. The panel regards curriculum coherence to be adequate, but suggests to structure the curriculum more strictly in terms of learning pathways and to strengthen specialisations' coherence.

The panel regards the lecturers in the programme to be very motivated to teach in the programme and to work together effectively. The panel notes the lecturers to be capable researchers, some of whom have world-class status. Their educational capabilities are up to standard. Lecturers' workload is appropriately managed.

The students-to-staff ratio is appropriate, allowing for rather small-scale education. The educational concept and study methods are adequate. The panel welcomes the sizeable proportions of practical classes and fieldwork. The number of hours of face-to-face education are favourable. The panel is positive about study guidance in the programme. Although the three-year completion rates are appropriate, the panel proposes to monitor the student success rates after two years.

The examination and assessment policies for the programme are appropriate. The panel considers the assessment system of the programme to be well-thought-through and up-to-date. Although the position and authority of the Examining Board for this programme are appropriate, the panel advises the Board to be more pro-active and to supervise examinations and assessments in a more direct way.

The examination methods adopted in the programme are adequate, being consistent with the goals and contents of the courses. The panel considers the measures taken to counter free riding to be appropriate.

The supervision for the Master thesis projects is adequate. The assessment processes are up to standard, involving two examiners and being conducted using elaborate rubrics scoring forms. The panel advises to better monitor outlier grades for projects and to invite third examiners in case of low or high grades.

The measures taken by the programme to ensure the validity and transparency of examinations and the reliability of assessments are adequate. The panel appreciates the Chair Groups inviting external experts to review courses and examinations and the Examining Board inspecting the quality of the examinations and assessments of Chair Groups. Students are informed well about examinations and assessments. The fraud and plagiarism formalities are up to standard.

The panel regards the Master thesis projects to be very much up to standard. The theses definitely match the programme intended learning outcomes. The panel supports the grades given by the programme examiners. The Master thesis projects are high-quality projects. They are based upon well-elaborated literature studies, are of strong domain-specific contents, exhibit sound and advanced levels of methodology, demonstrate extensive analyses and include focussed discussion of findings and results.

The panel considers the programme graduates to have reached the intended learning outcomes and to be qualified to find appropriate positions in the programme domain.

The panel which conducted the assessment of the Master Earth and Environment programme of Wageningen University assesses this programme to meet the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands, judging the programme to be satisfactory. Therefore, the panel advises NVAO to accredit the programme.

Rotterdam, 25 March 2019

Prof. dr. ir. A. Veldkamp
(panel chair)

drs. W. Vercouteren
(panel secretary)

2. Assessment process

The evaluation agency Certiked VBI received the request by Wageningen University to organise the limited framework programme assessment process for the Master Earth and Environment programme of this University. The objective of the programme assessment process was to assess whether the programme would conform to the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands, published on 20 December 2016 (Staatscourant nr. 69458).

Having conferred with management of the Wageningen University programme, Certiked invited candidate panel members to sit on the assessment panel. The panel members agreed to do so.

The panel composition was as follows:

- Prof. dr. ir. A. Veldkamp, dean ITC Faculty of Geo-Information and Earth Observation, University of Twente, the Netherlands (panel chair);
- Drs. T.M. van Daalen, director Geological Survey of the Netherlands, Netherlands Organisation for Applied Scientific Research, the Netherlands (panel member);
- Prof. dr. ir. N.E.C. Verhoest, associate professor, Department of Environment, Ghent University, Belgium (panel member);
- L. Roelofs BSc, student Master Earth Surface and Water, Faculty of Geosciences, Utrecht University, the Netherlands (student member).

On behalf of Certiked, drs. W. Vercouteren served as the process coordinator and secretary in the assessment process.

All panel members and the secretary confirmed in writing being impartial with regard to the programme to be assessed and observing the rules of confidentiality. Having obtained the authorisation by the University, Certiked requested the approval of NVAO of the proposed panel to conduct the assessment. NVAO has given its approval.

To prepare the assessment process, the process coordinator convened with management of the programme to discuss the outline of the self-assessment report, the subjects to be addressed in this report and the site visit schedule. In addition, the planning of the activities in preparation of the site visit were discussed. In the course of the process preparing for the site visit, programme management and the Certiked process coordinator regularly had contact to fine-tune the process. The activities prior to the site visit have been performed as planned. Programme management approved of the site visit schedule.

Well in advance of the site visit date, programme management sent the list of final projects of graduates of the programme of the last two years. Acting on behalf of the assessment panel, the process coordinator selected the theses of fifteen graduates from the last few years. The grade distribution in the selection was ensured to conform to the grade distribution in the list, sent by programme management. Specialisations in the programme have been taken into account in the selection.

The panel chair and the panel members were sent the self-assessment report of the programme, including appendices. In the self-assessment report, the student chapter was included. In addition, the expert panel members were forwarded a number of theses of the programme graduates, these theses being part of the selection made by the process coordinator.

Well before the site visit date, the assessment panel chair and the process coordinator met to discuss the self-assessment report provided by programme management, the procedures regarding the assessment process and the site visit schedule. In this meeting, the profile of panel chairs of NVAO was discussed as well. The panel chair was informed about the competencies, listed in the profile. Documents pertaining to a number of these competencies were presented to the panel chair. The meeting between the panel chair and the process coordinator served as the briefing for panel chairs, as meant in the NVAO profile of panel chairs.

Prior to the date of the site visit, all panel members sent in their preliminary findings, based on the self-assessment report and the final projects studied, and a number of questions to be put to the programme representatives on the day of the site visit. The panel secretary summarised this information, compiling a list of questions, which served as a starting point for the discussions with the programme representatives during the site visit.

Shortly before the site visit date, the complete panel met to go over the preliminary findings concerning the quality of the programme. During this meeting, the preliminary findings of the panel members, including those about the theses were discussed. The procedures to be adopted during the site visit, including the questions to be put to the programme representatives on the basis of the list compiled, were discussed as well.

On 15 January 2019, the panel conducted the site visit on the Wageningen University campus. The site visit schedule was as planned. In a number of separate sessions, the panel was given the opportunity to meet with Faculty Board representatives, programme management, Examining Board members, lecturers and final projects examiners, and students and alumni.

In a closed session at the end of the site visit, the panel considered every one of the findings, weighed the considerations and arrived at conclusions with regard to the quality of the programme. At the end of the site visit, the panel chair presented a broad outline of the considerations and conclusions to programme representatives.

Clearly separated from the process of the programme assessment, assessment panel members and programme representatives met to conduct the development dialogue, with the objective to discuss future developments of the programme.

The assessment draft report was finalised by the secretary, having taken into account the findings and considerations of the panel. The draft report was sent to the panel members, who studied it and made a number of changes. Thereupon, the secretary edited the final report. This report was presented to programme management to be corrected for factual inaccuracies. Programme management were given two weeks to respond. Having been corrected for these factual inaccuracies, the Certiked bureau sent the report to the Board of Wageningen University, to accompany their request for re-accreditation of this programme.

3. Programme administrative information

Name programme in CROHO: M Earth and Environment
Orientation, level programme: Academic Master
Grade: MSc
Number of credits: 120 EC
Specialisations: Hydrology and Water Resources
Meteorology and Air Quality
Biology and Chemistry of Soil and Water
Soil Geography and Earth Surface Dynamics
Location: Wageningen
Mode of study: Full-time (language of instruction English)
Registration in CROHO: 21PI-60100
Name of institution: Wageningen University
Status of institution: Government-funded University
Institution's quality assurance: Approved

4. Findings, considerations and assessments per standard

4.1 Standard 1: Intended learning outcomes

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

Findings

The Master Earth and Environment programme is one of the programmes of Wageningen University. Wageningen University is a one-faculty University. The Rector is assisted by the Dean of Research and the Dean of Education. The Dean of Education is the technical chair of the Board of Education. This Board, being composed of four professors and four students, is responsible for all programmes of the Faculty. The Dean of Education is also head of the Department of Education and Student Affairs, being in this capacity responsible for facilitating education within the University. For this programme as for all other programmes of the Faculty, the Programme Committee is responsible for the contents and quality of the programme. The Programme Committee is composed of equal numbers of staff members and students. The director of this programme is responsible for the day-to-day management and support activities of the programme. Courses within the programme are part of the programme curriculum, but all of the courses are taught by Chair Groups within the University. Chair Groups are part of one of the five Science Groups of the University. In Chair Groups, expertise on specific subjects is clustered. The programme director maintains contacts with Chair Groups regarding design, contents and quality of the courses they deliver. The learning goals, contents, teaching methods and assessment methods are subject to the approval of the Programme Committee and the Board of Education. Each year, in the Education Modification Cycle, these are discussed. For all of the programmes of the University, four Examining Boards are in place. For this programme, the Examining Board Environment and Landscape has the authority to ensure the quality of examinations and assessments.

The Master Earth and Environment programme of Wageningen University is a two-year, research-based, academic master programme in the multi-disciplinary Earth Sciences domain. In the programme, the effects of the Earth system and processes on life on Earth are studied. The programme objectives are to study the structures and patterns at the Earth's surface and the physical, chemical and biological processes operating in and between especially the hydrosphere, atmosphere, pedosphere and biosphere, at different temporal and spatial scales. Students are educated to understand Earth Sciences phenomena and processes in-depth. Students are taught research methods and techniques in measurements, data sampling and data analysis to obtain and analyse information about phenomena and processes. To that end, students are acquainted with fieldwork, laboratory work, computer programming and modelling. Students learn to do interventions and to assess the consequences.

In the programme, four specialisations are offered. The Hydrology and Water Resources specialisation is directed towards the study of catchment-scale hydrological processes and quantitative river basin management, including transport through soils. The Meteorology and Air Quality specialisation studies atmospheric processes, including physical-chemical processes, and teaches students observational and computer skills and advanced modelling in this domain. The Biology and Chemistry of Soil and Water

specialisation teaches students to understand chemical and biological processes in soils and natural waters, and their effects on terrestrial and aquatic ecosystems functioning. The Soil Geography and Earth Surface Dynamics specialisation explores the spatial and temporal processes active in soils, landscapes and the wider Earth system, the impact of climate change on water and soil resources, and adaptation strategies and the role of society in this field.

The programme has been benchmarked against the Earth Sciences domain-specific reference framework, which has been drafted by the joint Earth Sciences programmes in the Netherlands. The objectives of the programme conform to this framework.

The programme trains students to enter the labour market and to find positions in the programme field. Students are prepared for positions in a wide range of organisations. They may be researchers, specialists or consultants in academia, engineering firms, consultancy firms, or government organisations. Students choosing the Hydrology and Water Resources or Meteorology and Air Quality specialisations, may opt to become fully-qualified teachers in Physics in Dutch secondary education. They take education classes, which are offered by Radboud University Teacher's Academy.

The programme regularly meets with the External Advisory Committee, being composed of professional field representatives, to discuss the programme objectives from the professional field perspective. Experts from foreign institutes on a regular basis review the programme, comparing it to international standards.

The programme objectives have been translated into the intended learning outcomes of the programme. The intended learning outcomes include, as main points, investigating physical, chemical and biological processes of the Earth system, integrating these processes into modelling concepts, analysing problems in the field of specialisation, doing research in the programme domain, integrating theory and information from laboratory and fieldwork experiments and/or modelling, communication skills, working in international teams, knowing current trends in this field, and self-directed learning competencies.

Programme management presented the comparison of the intended learning outcomes to the Dublin descriptors for the master level.

Considerations

The panel considers the programme objectives to be sound and relevant. The panel is positive about the objectives of the programme to study the structures and patterns at the Earth's surface and the physical, chemical and biological processes in the hydrosphere, atmosphere and biosphere parts of the Earth Sciences field, to offer students quantitative methods and techniques to investigate and analyse these processes and to train them to do interventions and to assess the consequences. The panel appreciates students being offered four distinct specialisations to deepen their knowledge and skills within the programme domain in one of these specialised fields.

The programme objectives correspond to domain-specific reference framework for the Earth Sciences programmes. The panel welcomes the efforts by the joint Earth Sciences programmes in the Netherlands to draft this framework and regards this to be the sound and up-to-date description of the domain.

Students are educated to enter the labour market in the programme domain. The panel welcomes the wide range of positions and types of organisation students are prepared for.

The panel is positive about the programme maintaining regular contacts with the professional field and with international experts in this domain.

The programme intended learning outcomes correspond to the programme objectives, are complete and conform to the master level.

Assessment of this standard

These considerations have led the assessment panel to assess standard 1, Intended learning outcomes, to be satisfactory.

4.2 Standard 2: Teaching-learning environment

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

Findings

The number of incoming students in the last five years remained rather stable at about 70 students per year, having risen from about 40 students in the years 2011 and 2012. The proportion of international students is about 25 % to 30 % of the total influx. Students having completed the Bachelor Soil, Water, Atmosphere programme are admitted unconditionally. Students from different backgrounds have to report equivalent knowledge and skills, favourable grade point average (70 %), and proficiency in the English language. All applications are reviewed by the programme Admissions Committee. All students are interviewed by study advisers before the start of the programme. Students with deficiencies may be required to take up to 30 EC pre-master programme courses. As the prior knowledge and skills of students from the Wageningen Bachelor Soil, Water, Atmosphere programme and other students may differ, the first two courses are meant for all students to reach the same level.

The curriculum of the programme takes two years and carries 120 EC of study load. The programme presented a table, showing the mapping of the intended learning outcomes and the courses for each of the specialisations. The first two courses (12 EC) are courses common to the programme. These courses introduce students to the programme domain and to research methods and techniques in this domain. The other courses and curriculum components in the curriculum are specialisation-dependent. In the first year, students take specialisation-required courses (18 EC) and elective courses (18 EC). Students tend to select electives allowing them to deepen their knowledge and skills in their specialisation. The *Academic Master Cluster* (12 EC), at the end of the first year, is meant to improve students' professional skills. Students work together with students from other programmes, completing interdisciplinary group projects. This course offers a number of options, depending upon students' preferences. They can either choose for consultancy-oriented training, writing of research proposals writing, training in entrepreneurship or skills training in sustainable transition. The second year is composed of the Master thesis project (36 EC) and the Internship (24 EC). The Master thesis project is an individual research project within the student's specialisation and being supervised by one or more Chair Groups. The Internship is meant to acquaint students with the professional field. Students may take internships at research institutes, companies or public sector organisations. Many students do their internships abroad. Internships should have academic contents. Academic skills, such as academic writing skills, presentation skills and team-working skills are part of a number of courses in the curriculum. New trends, such as data science, are addressed in the curriculum. To prepare students for the labour market, the course *Trending Topics* has been introduced. In addition, the programme schedules career days to inform students about career perspectives. These career days are organised in cooperation with the University, the Environmental Sciences Group and the study association.

A total number of 68 lecturers are involved in the programme. The lecturers are active researchers in their fields. They are members of research institutes within the University. About 95 % of the staff members have PhD degrees. Few lecturers only lecture, have no PhD degrees and may not be involved in research. About 71 % of the total number of lecturers are BKO-certified. Lecturers experience the workload to be demanding. More staff is being recruited to alleviate the workload. Lecturers meet to discuss the programme. Students indicate to be very content about lecturers' performances and accessibility.

The students-to-staff ratio of the programme is 16/1, corresponding to the average University ratio. The number of hours of face-to-face education is about 26 hours per week in the first year. For the Master thesis project supervision in the second year, 50 hours are available. The programme educational concept is to encourage students to actively engage in the learning processes. To that end, activating study methods are used. Study methods adopted in the programme are lectures, tutorials, computer classes, laboratory classes, fieldwork, and site visits. The practical laboratory and computer classes and the fieldwork and site visits constitute over 50 % of the curriculum. The programme is working on strengthening safety requirements for fieldwork. The programme is in the process of introducing new study methods, such as flipped classroom and e-learning tools. Programme management and the study adviser inform students about procedures and about the specialisations. The study advisor assists them in selecting elective courses. Upon advice of the study adviser, the Examining Board approves of study packages. The study adviser monitors students' study progress and discusses with them study delays. The student success rates are on average 41 % after two years and 84 % after three years (figures for last four to five cohorts). The two-year completion figures for the last two cohorts were only about 25 %.

Considerations

The panel is positive about the entry requirements and about the admission procedures adopted by the programme, involving the Admissions Committee and interviews by study advisers. As the panel notes discrepancies between knowledge and skills of incoming students, the panel advises to specifically pay attention to the prior education of foreign students.

The panel ascertained the curriculum for each of the specialisations to meet the intended learning outcomes of the programme. The courses are up to standard. The panel appreciates the curriculum educating in-depth specialisation subjects as well as research methods and techniques to analyse these subjects. Academic skills are addressed appropriately. The panel considers curriculum coherence to be adequate, but suggests to structure the curriculum more strictly in terms of learning pathways and to strengthen specialisations' coherence.

The panel regards the lecturers in the programme to be very motivated to teach in the programme and to work together effectively. The panel notes the lecturers to be capable researchers, some of whom have world-class status. Their educational capabilities are up to standard. Lecturers' workload is appropriately managed.

The students-to-staff ratio is appropriate, allowing for rather small-scale education. The panel regards the educational concept and study methods to be adequate and especially welcomes the sizeable proportions of practical classes and fieldwork. The number of hours of face-to-face education are favourable. The panel is positive about study guidance in the programme, study advisers being very approachable. Although the three-year completion rates are appropriate, the panel proposes to monitor the student success rates after two years.

Assessment of this standard

These considerations have led the assessment panel to assess standard 2, Teaching-learning environment, to be satisfactory.

4.3 Standard 3: Student assessment

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

Findings

The examinations and assessments in the programme as well as the responsibilities of the Examining Board match the University assessment policy. As has been indicated, the Examining Board Environment and Landscape has the authority to ensure the quality of examinations and assessments of the programme. The responsibilities of the Board are outlined in the University assessment policy document as well.

Examination methods in the programme include written examinations, written individual or group reports or papers, oral presentations, and practical laboratory performance evaluation. Examination methods are selected to conform to the course goals and are in line with cognitive levels to be assessed. In all courses, multiple examinations are scheduled, to allow for different course goals to be adequately assessed. In case of group assignments, peer review among students is taken into account to counter free-riding effects. In courses, group assignments are complemented by individual examinations. Formative assessment are scheduled in courses to promote study progress. For Internships, students have to submit the internship report, give an oral defence and submit the self-reflection report. Internship progress is discussed between the programme supervisor and the external supervisor. The programme supervisor assesses the internship report, the self-reflection report and the presentation, being advised by the external supervisor. To assess the Internship, rubrics scoring forms have been adopted.

The Master thesis projects are individual scientific research projects. In the thesis projects, students are to demonstrate being able to complete independently a research project within their specialisation. Master thesis projects are to cover the entire scientific research process. Chair Groups present topics, but students may also propose topics themselves. Students are entitled to individual guidance by their supervisor, coming from one of the Chair Groups. In thesis rings students may work on their projects in small groups, peer-reviewing their proposals and drafts. The thesis project processes are overseen by the Chair Group coordinators. The projects are assessed on the basis of research competencies (30 % to 60 % of grade), thesis report (30 % to 60 %), presentation (5 %) and oral defence (5 %). Proportions of grades may differ, but are clear to students from the onset. The Master thesis projects are assessed by the supervisor and the second examiner, using rubrics scoring forms.

In the programme, measures are taken to ensure the validity, reliability and transparency of examinations and assessments. The Examining Board appoints the examiners, who should be involved in the courses as lecturers or coordinators, should have PhD degrees and should be BKO-certified. The Examining Board on a regular basis reviews examinations and assessments of each of the Chair Groups in the programme to see if these meet quality requirements. International experts in the programme domain review course goals, course contents and examinations of the Chair Groups. Recently, the Examining Board started regular meetings with the Programme Committee to discuss examinations and assessments at the programme level. Students are informed about the examinations and grading schemes and are presented with test examinations. Theses and other written reports are checked for plagiarism. The Examining Board handles cases of fraud or plagiarism and imposes sanctions.

Considerations

The panel considers the examination and assessment policies for the programme to be appropriate, these being in line with the University rules and regulations. The panel considers the assessment system of the programme to be well-thought-through and up-to-date. Although the position and authority of the Examining Board for this programme are appropriate, the panel advises the Board to be more pro-active and to supervise examinations and assessments more directly.

The panel approves of the examination methods adopted in the programme, as these are consistent with the goals and contents of the courses and the course components and are aligned with cognitive levels. The panel considers the measures taken to counter free riding to be adequate.

The supervision and assessment procedures of the Master thesis projects are up to standard. Students are offered appropriate supervision. The assessment processes are up to standard, involving two examiners and being conducted using elaborate rubrics scoring forms. The panel advises to better monitor outlier grades for projects and to invite third examiners in case of low or high grades.

The measures taken by the programme to ensure the validity and transparency of examinations and the reliability of assessments are adequate. The panel appreciates the Chair Groups inviting external experts to review courses and examinations and the Examining Board inspecting the quality of the examinations and assessments of Chair Groups. Students are informed well about examinations and assessments. The fraud and plagiarism formalities are up to standard.

Assessment of this standard

The considerations have led the assessment panel to assess standard 3, Student assessment, to be satisfactory.

4.4 Standard 4: Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

Findings

The panel studied a total of fifteen Master theses of graduates of the programme. The average grade for these projects is 7.7 both in 2015/2016 and 2016/2017.

The programme conducted a survey among graduates, which included about 80 % of all graduates. The outcomes of the survey show about 83 % of the programme graduates finding positions within six months after graduation. Most graduates find jobs as researchers (30 %), specialists (25 %) or advisors or consultants (22 %). Most of them are employed by engineering or consultancy firms (38 %), research institutes (10 %), universities (26 %), or government organisations (11 %).

Considerations

The Master thesis projects are regarded by the panel to be very much up to standard. The theses the panel studied definitely match the intended learning outcomes of the programme. The panel supports the grades given by the programme examiners. The panel considers the Master thesis projects to be high-quality projects. They are based upon well-elaborated literature studies, are of strong domain-specific contents, exhibit sound and advanced levels of methodology, demonstrate extensive analyses and include focussed discussion of findings and results.

The panel considers the programme graduates to have reached the intended learning outcomes and to be qualified to find appropriate positions in the programme domain.

Assessment of this standard

The considerations have led the assessment panel to assess standard 4, Achieved learning outcomes, to be good.

5. Overview of assessments

| Standard | Assessment |
|---|--------------|
| Standard 1. Intended learning outcomes | Satisfactory |
| Standard 2: Teaching-learning environment | Satisfactory |
| Standard 3: Student assessment | Satisfactory |
| Standard 4: Achieved learning outcomes | Good |
| Programme | Satisfactory |

6. Recommendations

In this report, recommendations by the panel have been listed. For the sake of clarity, these have been brought together below. These panel recommendations are the following.

- To specifically pay attention to the prior education of incoming students from abroad.
- To structure the curriculum more strictly in terms of learning pathways and to strengthen specialisations' coherence.
- To monitor the student success rates after two years.
- For the Examinations Board to be more pro-active and to supervise examinations and assessments more directly.
- To better monitor outlier grades for Master thesis projects.
- To invite third examiners in case of low or high grades for Master thesis projects.