

Assessment report
Limited Framework Programme Assessment

Master of Logic

University of Amsterdam

Contents of the report

1. Executive summary	2
2. Programme administrative information.....	5
3. Findings, considerations and assessments per standard	6
3.1 Standard 1: Intended learning outcomes	6
3.2 Standard 2: Teaching-learning environment	9
3.3 Standard 3: Student assessment.....	12
3.4 Standard 4: Achieved learning outcomes	14
4. Overview of assessments	16
5. Recommendation.....	17
Appendix: Assessment process	18

1. Executive summary

In this executive summary, the panel presents the main considerations which led to the assessment of the quality of the Master of Logic of the University of Amsterdam. The programme was 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.

The panel regards the organisation of the programme to be appropriate. Programme management as well as the lecturers in the programme are considered by the panel to be very skilled and engaged.

The panel notes programme management adequately responded to the recommendations of the previous external assessment panel.

The panel considers the programme objectives to be excellent. The concept of language, logic and information, as has been defined for the programme, is valuable and distinguishes the programme from other programmes around the world. This concept allows to establish connections to disciplines, such as mathematics, linguistics, computer science and philosophy but also to disciplines, such as economics, game theory, cognitive science and social choice theory. The four specialisations of the programme give students the opportunity to specialise in one of the areas within the programme field. The interdisciplinary orientation of the programme enables students on the other hand to be broadly educated in this field. Programme management may consider adding tracks to address the fields of cognitive science or artificial intelligence. The panel appreciates students not only being prepared for careers in the academic world but also for positions in the professional field.

The programme objectives have been adequately translated into the programme intended learning outcomes. The panel supports the introduction of the newly phrased intended learning outcomes, as these reflect the programme objectives even more clearly.

The panel agrees with the reasons programme management has given for the English name of the programme and English as the language of instruction.

The panel is pleased to see the programme growing in student numbers, but feels it is now at maximum capacity. Any further growth should, in the panel's view, be matched by recruitment of extra staff. The admission requirements for the programme are valid and strict. The admission procedures are very well designed, allowing only the most talented and motivated students in.

The panel assesses the programme curriculum to be unparalleled in the world and to be outstanding in terms of breadth and depth. Students are deeply acquainted with scientific research in courses, research projects and the Master thesis. The intended learning outcomes have all been covered in the programme. Although students take individual study paths, all of them attain the intended learning outcomes. The curriculum coherence is up to standard.

The lecturers are very reputed researchers and are experts in their fields, who are able to teach the students the state-of-the-art of these fields. Students have perfect opportunities to gather in-depth knowledge of logic, language and information, at the forefront of scientific developments. The lecturers have good teaching qualities, as may be deduced from the proportion of them being BKO-certified. The panel notes students being very appreciative of their lecturers.

The programme is very demanding, but effective action has been taken to enable students to complete the programme. The educational concept and study methods are conducive to the student learning processes. The programme remains small scale, although student numbers have risen. The panel much appreciates the support by the programme manager and the guidance by the academic mentors. The panel welcomes the programme relocation to a more spacious building, seeing the rise in student numbers. The drop-out and student success rates are satisfactory, but need to be monitored.

The panel approves of the examinations and assessment rules and regulations of the programme, these being in line with Faculty of Science policy guidelines. The position and responsibilities of the Examinations Board are up to standard. The panel endorses putting the responsibility for the quality of examinations and assessments mainly in the hands of the examiners.

The examination methods for the courses correspond to the course contents. They are of a wide variety, reflecting the different goals and contents of courses.

The thesis graduation trajectory is in the panel's view well organised. The supervision of the thesis is up to standard. The panel praises the very elaborate thesis assessment and grading procedures and the role of the Examinations Board in this respect. These procedures promote the reliability of the thesis assessments.

The measures taken by programme management, the examiners and the Examinations Board to ensure the quality of the examinations and assessments are adequate and promote the validity, reliability and transparency of the examinations and assessments. The panel appreciates draft examinations being peer reviewed. The panel welcomes the monitoring of course examinations by the Examinations Board.

The panel considers the examinations of the courses to meet the course goals and to be of very good quality. The panel is very impressed by the quality and the level of the Master theses. The panel assesses these to have reached levels substantially above master levels. Theses often rival PhD dissertations. A very large number of students are doing excellent research. In addition, the panel is equally impressed by the large number of Master theses having led to peer-reviewed publications.

The majority of the graduates obtain PhD positions at renowned universities. This is another reason for the panel to assess this programme as one of the best, if not the best programme on logic in the world.

The panel which conducted the assessment of the Master of Logic of the University of Amsterdam 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 positive. Therefore, the panel recommends NVAO to accredit this programme.

Rotterdam, 14 April 2020

Prof. dr. J.F. Horty
(panel chair)

Drs. W. Vercouteren
(panel secretary)

2. Programme administrative information

Name programme in CROHO: Master of Logic
Orientation, level programme: Academic Master
Grade: MSc
Number of credits: 120 EC
Specialisations: Logic and Computation
Logic and Language
Logic and Mathematics
Logic and Philosophy
Location: Amsterdam
Mode of study: Full-time (language of instruction: English)
Registration in CROHO: 21PK-60226

Name of institution: University of Amsterdam
Status of institution: Government-funded University
Institution's quality assurance: Approved

3. Findings, considerations and assessments per standard

3.1 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 of Logic of the University of Amsterdam is a 120 EC academic master programme in the research areas of logic, language and information. The programme is offered in the full-time study mode and takes two years to complete.

The programme is one of the master programmes of the Faculty of Science of the University of Amsterdam. The programme is part of the Graduate School of Informatics of the Faculty, in which all six information sciences master programmes of the Faculty have been brought together. The Faculty Board, chaired by the Dean, has ultimate responsibility for this and the other programmes of the Faculty. The director of the Graduate School is responsible for the quality of this and the other information sciences master programmes. The programme is offered by the Institute for Logic, Language and Computation of the University of Amsterdam. In the Institute, the Faculty of Science and the Faculty of Humanities of the University of Amsterdam work together. The programme director, assisted by the programme manager, is responsible for the day-to-day management of the programme. The lecturers in the programme are mostly researchers at the Institute for Logic, Language and Computation. Student surveys are organised to evaluate the quality of individual courses, the curriculum as a whole and specific aspects of the programme, such as student well-being. The Programme Committee, being composed of lecturers and students, processes the results of these evaluations and advises programme management about the quality of the programme.

The panel was informed about the recommendations regarding the programme by the previous external assessment panel, six year ago, as well as about the steps programme management has taken to follow up on these recommendations. The proportion of BKO-certified lecturers was raised and the Master thesis assessment criteria were articulated more precisely.

The programme studies the field of language, logic and information. This field constitutes the interdisciplinary study of all aspects of information, particularly languages (both natural and artificial) as carriers of information, emphasising the use of logic and, more generally, formal methods. The programme studies how humans and machines accomplish tasks of representing, communicating, manipulating and reasoning with information. The programme objectives are to create an international, interdisciplinary and research-oriented learning environment and to educate students to become researchers in this field of logic, language and information.

Programme management presented an extensive overview of similar programmes of universities around the world. Compared to these programmes, this programme distinguishes itself by covering the field of language, logic and information comprehensively.

The programme offers four specialisations or tracks. These are Logic and Computation, Logic and Language, Logic and Mathematics, and Logic and Philosophy. The programme is highly interdisciplinary, as students are expressly trained to cross the boundaries between their own specialisation and the other specialisations.

The programme primarily aims to educate students for PhD trajectories to become researchers and work in the academic world. Lecturers in the programme are reputed researchers, in close contact with disciplinary and interdisciplinary departments and research centres around the world and, therefore, are very aware of the requirements for these academic positions. At the same time, the programme also aims to enable students to obtain positions in the professional field. Training students in, among others, critical evaluation of a complex body of information, communication skills and collaboration skills prepares them for the professional field. From the academic year 2018/2019 onwards, the Professional Advisory Board for the programme was installed to foster the link of the programme with the non-academic, professional field. Students may contact non-academic mentors, when they would want to prepare for positions outside of academia.

The programme objectives have been translated into the intended learning outcomes. According to the programme intended learning outcomes, students can do interdisciplinary research in the area of logic, language and information, have solid knowledge of logic and specialised knowledge in one or more of the programme specialisations, can formulate research questions and address these in research plans, can contribute to theories and methods in their specialisation, can critically evaluate contributions by others, have skills to collaborate in multidisciplinary teams, have presentation and writing skills, and can transcend boundaries between the programme specialisations. For the academic year 2020/2021 and later years, programme management rephrased the intended learning outcomes, keeping the substance intact, but sharpening some of the formulations.

Programme management drafted a table from which the matching of the intended learning outcomes to the Dublin descriptors for master programmes may be inferred.

The name of the programme is in English and the language of instruction of the programme is English as well. The reasons to present the programme in this language are the international position of the programme and the Institute for Language, Logic and Computation, and to accommodate international students. About 70 % of the students come from outside of the Netherlands.

Considerations

The panel regards the organisation of the programme to be appropriate. Programme management as well as the lecturers in the programme are considered by the panel to be very skilled and engaged.

The panel notes programme management adequately responded to the recommendations of the previous external assessment panel.

The panel considers the programme objectives to be excellent. The concept of language, logic and information, as has been defined for the programme, is valuable, as it gives the programme a clear profile and distinguishes it from similar programmes around the world. This concept allows to establish connections to disciplines, such as mathematics, linguistics, computer science and philosophy but also to disciplines, such as economics, game theory, cognitive science and social choice theory. Programme management may consider adding tracks to address the fields of cognitive science or artificial intelligence.

The four specialisations of the programme are a strong feature, since students are given the opportunity to specialise in one of the areas within the programme field. The interdisciplinary orientation of the programme enables students on the other hand to be broadly educated in this field.

The panel appreciates students not only being prepared for careers in the academic world but also for positions in the professional field.

The programme objectives have been adequately translated into the programme intended learning outcomes. The intended learning outcomes of the programme correspond to the Dublin descriptors for master programmes and, therefore, meet the master level requirements. The panel supports the introduction of the newly phrased intended learning outcomes, as these reflect the programme objectives even more clearly.

The panel agrees with the reasons programme management has given for the English name of the programme and English as the language of instruction.

Assessment of this standard

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

3.2 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 last five years, the average intake was 40 to 45 incoming students. The number of applications has risen substantially and is now at 150 applications per year. About 40 % to 45 % of the applications are rejected. Of the students admitted to the programme, only 60 % actually come. The others do not, in most cases for financial reasons. Grants or stipends available to them are very few. The proportion of non-Dutch students is about 70 %. The proportion of female students is around 30 %. The requirements to enter the programme are very strict. To be admitted, applicants ought to report bachelor degrees in mathematics, computer science, philosophy or linguistics, should have strong backgrounds in logic, have to report strong results in their bachelors, and are to be proficient in English. All applications are screened by the programme Admissions Board. The Board decides on admissions, every member having submitted his or her assessment of applications. Students admitted to the programme are generally excellent students. About 35 % to 40 % of the incoming students opt for the Logic and Philosophy track, about 25 % to 30 % choose the Logic and Mathematics track, and about 15 % of the students select one of the two other tracks. This distribution is rather stable over the years. In the first semester, incoming students are acquainted with the practical aspects to the programme and the University by second-year student mentors.

Programme management has demonstrated all of the intended learning outcomes to be covered in the programme curriculum. All the intended learning outcomes are met in each of the tracks. The curriculum comprises 120 EC and takes two years to complete. The general curriculum structure for all students is obligatory courses (about 25 % of the study load), elective courses (about 50 %) and research training components (about 30 %). For all students, two obligatory courses are scheduled. Dependent upon the track chosen, students take between two and four track-specific courses. In addition, students take elective courses. Electives may be selected from the list of obligatory courses of other specialisations, may be electives in this programme or may be specialised courses of other universities in the Netherlands. Many of the elective courses address subjects at the intersections of the specialisations offered in the programme and, therefore, add to the interdisciplinary character of the programme. Students have to do at least one research project. The research projects (6 EC each) allow students to become acquainted with current research and to work together with researchers in the programme field. Students are expected to attend research seminars, organised by the Institute for Logic, Language and Computation. Research seminars do not offer credits. In the final semester of the curriculum, students write the Master thesis (30 EC). Boundaries between the specialisations in the programme are not sharply drawn. Specialisations allow students to gain advanced knowledge in the field they have chosen, but also connect to the other specialisations to meet the interdisciplinary learning outcomes of the programme. Lecturers in the programme discuss the alignment of the courses to avoid overlap of courses or gaps between courses. Overlap is in some instances seen as beneficial for students.

The number of staff members lecturing in the programme are about 50 lecturers, offering a total of 60 courses in the programme. These lecturers come from a wide range of departments and institutes and also from outside of the University of Amsterdam. The core staff of the programme consists of nearly 40 lecturers who teach in courses and supervise Master theses. They are mainly researchers at the Institute for Language, Logic and Computation. All of the core staff members have PhDs and over 80 % of them are BKO-certified. The Institute's research quality was assessed as excellent in recent research assessments. Most of the lecturers are reputed researchers. Many of them were awarded major Dutch and European research grants. Lecturers obtaining these grants keep teaching in the programme, be it on a less extensive scale. Teaching assistants participate in the courses to give tutorials or to assist in grading examinations. Lecturers find it very rewarding to teach in this programme. They often come together to discuss the programme. Students appreciate the lecturers for their teaching qualities and for being very approachable.

The programme educational concept rests on three pillars, being interdisciplinarity, internationality and individuality. Students are stimulated to cross disciplinary boundaries, to interact with fellow students of a wide range of countries, and to become their own (research) personalities. The programme is small scale, the student-to-staff ratio being 11.4 students per full-time equivalent of staff capacity. The study methods applied in the programme are lectures, paired with tutorials, seminar sessions or computer lab sessions. In tutorials, students work on exercises. In seminar sessions, students discuss subjects. Flipped classroom or team-based study methods are adopted as well. In the first three semesters, the average number of hours of face-to-face education is 13 hours per week. In the fourth semester, the Master thesis semester, this number is 2 hours per week. Students experience the programme to be challenging but manageable. The programme manager is the students' first point of contact in case of study-related or personal problems. Students are individually guided through the programme by their academic mentors. Most core lecturers serve as academic mentors. Academic mentors advise students on the design of individual study plans, assist in finding thesis supervisors and may give career advice. They meet twice per year to discuss students' progress. Students make use of the MOL room to study, which may be cramped at times. In the coming years, the programme will be relocated to a new and more spacious building. In the last three years, the drop-out rate for the programme was on average 13 %. The average student success rates were 42 % after two years and 69 % after three years. The thesis writing process is the main bottleneck to complete the study in time. Programme management designed the graduation trajectory to counter this problem.

Considerations

The panel is pleased to see the programme growing in student numbers, but feels the programme is now at maximum capacity. Any further growth should, in the panel's view, be matched by recruitment of extra staff. The panel considers the admission requirements for the programme to be valid and strict. The panel feels the admission procedures to be very well designed, allowing only the most talented and motivated students in.

The panel assesses the programme curriculum to be unparalleled in the world and to be outstanding in terms of breadth and depth. The curriculum allows students to obtain both in-depth advanced disciplinary and broad interdisciplinary knowledge and understanding in the programme field.

Students are deeply acquainted with scientific research in courses, research projects and the Master thesis. The intended learning outcomes have all been covered in the programme. Although students take individual study paths, all of them attain the intended learning outcomes of the programme. The curriculum coherence is up to standard.

The lecturers are very reputed researchers and are experts in their fields, who are able to teach the students the state-of-the-art of these fields. Students have perfect opportunities to gather in-depth knowledge of logic, language and information, at the forefront of scientific developments. The lecturers have good teaching qualities, as may be deduced from the proportion of them being BKO-certified. The panel notes students being very appreciative of their lecturers.

The programme is very demanding, but programme management is taking effective action to guide students through the programme. The educational concept and the study methods of the programme are conducive to the student learning processes. The programme remains small scale, in the face of rising student numbers. The panel much appreciates the support by the programme manager and the guidance on the part of the academic mentors. The panel welcomes the programme relocation to a more spacious building, seeing the rise in student numbers. The drop-out and student success rates are satisfactory, but need to be monitored.

Assessment of this standard

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

3.3 Standard 3: Student assessment

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

The programme examination and assessment rules and regulations are conform to the Faculty of Science assessment policy. The main principle for the programme is that the responsibility for the quality of examinations and assessments lies in the hands of the examiners. The programme Examinations Board monitors the quality of examinations and assessments of this programme, but does so respecting this principle. The Board also rules on students' requests for, among others, cum laude or exemptions.

Examination methods adopted in courses are written examinations, take-home examinations, term papers, in-class presentations, programming assignments, design and execution of experiments or combinations of these. If group work is part of course examinations, at least 50 % of the final mark for the course should be determined by traceable, individual contributions by students, in order to assure the reliability of the assessments.

For the Master thesis, the thesis graduation trajectory has been designed. This trajectory is meant to assist students to complete the thesis in time. Students are entitled to the assistance by their supervisor, who is an experienced researcher in the field. Students are encouraged to discuss their thesis in organised research meetings with other researchers. At the start of the work on their thesis, students have to present the thesis plans before an audience of fellow students and the programme director. Three to four months before the thesis deadline, students have to submit the thesis project proposal. This proposal has to be approved by the supervisor and one of the members of the Examinations Board. Two months later, students are to present their intermediate results before an audience of Institute for Logic, Language and Computation researchers. Master theses are assessed by thesis committees, being composed of at least three examiners. The supervisor is one of the examiners. All examiners present their assessments. These are discussed within the committee to come to the grade. Thesis committees are chaired by one of the Examinations Board members to promote the same standards being applied for the assessment and grading of theses. The committees grade the theses and substantiate their grades and assessments with written comments.

Programme management and the Examinations Board have taken measures to promote the validity, reliability and transparency of examinations and assessments. All draft examinations are peer-reviewed by fellow examiners. All examinations are uploaded by examiners for inspection by the Examinations Board. The Board reviews examination and grade statistics, inspects deviant distributions and invites examiners for an explanation in these cases. Students are informed about course examination methods. They have the right to inspect their work. University rules to counter fraud and plagiarism are applied.

Considerations

The panel approves of the examinations and assessment rules and regulations of the programme, these being in line with Faculty of Science policy guidelines. The position and responsibilities of the Examinations Board are up to standard. The panel endorses putting the responsibility for the quality of examinations and assessments mainly in the hands of the examiners.

The examination methods for the courses correspond to the course contents. They are of a wide variety, reflecting the different goals and contents of courses.

The thesis graduation trajectory is in the panel's view well organised. The supervision of the thesis is up to standard. The panel praises the very elaborate thesis assessment and grading procedures and the role of the Examinations Board in this respect. These procedures promote the reliability of the thesis assessments.

The measures taken by programme management, the examiners and the Examinations Board to ensure the quality of the examinations and assessments are adequate and promote the validity, reliability and transparency of the examinations and assessments. The panel appreciates draft examinations being peer reviewed. The panel welcomes the monitoring of course examinations by the Examinations Board.

Assessment of this standard

These considerations have led the assessment panel to assess the programme to meet standard 3, Student assessment.

3.4 Standard 4: Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.
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Findings

The panel studied the examinations of courses of the programme.

In addition, the panel reviewed fifteen Master theses of the last two years. In their thesis, students are to demonstrate thorough knowledge of the topics addressed and a solid grasp of the research methods applied. In addition, students are to show high-level independent learning skills, writing skills and information retrieval skills. The theses are assessed on the criteria correctness, writing, difficulty, research contribution and student independence. About 30 % to 40 % of the theses result in original, peer-reviewed publications, often in collaboration with students' supervisors. Many theses are published in prestigious academic journals or are presented at well-known international conferences. In addition, a number of theses have been awarded important prizes.

For the last four years, on average 30 % of the programme graduates complete the programme with the *cum laude* distinction.

In recent years, surveys (NSE) among students were conducted. The results of these surveys show about 90 % of the students being very satisfied with the programme. In 2019, programme management conducted a survey among programme graduates. The outcomes of this survey show the graduates appreciating the programme very highly with the average score of 8.9/10.

The vast majority of the programme graduates secure adequate positions before or shortly after their graduation. For the last six years, about 60 % of the graduates proceeded to PhD trajectories at prestigious universities. The other graduates found positions in the ICT industry, in management or consultancy or as teachers in university or in high schools. Students who want to work outside of academia are given the opportunities to discuss career paths with non-academic mentors.

Considerations

The panel considers the examinations of the courses to meet the course goals and to be of very good quality.

The panel is very impressed by the quality and the level of the Master theses. The panel assesses these to have reached levels substantially above master levels. In the panel's view, theses often rival PhD dissertations. A very large number of students are doing excellent research. In addition, the panel is equally impressed by the large number of Master theses having led to peer-reviewed publications,

The majority of the graduates obtain PhD positions at renowned universities. This is another reason for the panel to assess this programme as one of the best, if not the best programme on logic in the world.

Assessment of this standard

These considerations have led the assessment panel to assess the programme to meet standard 4,
Achieved learning outcomes.

4. Overview of assessments

Standard	Assessment
Standard 1. Intended learning outcomes	Standard met
Standard 2: Teaching-learning environment	Standard met
Standard 3: Student assessment	Standard met
Standard 4: Achieved learning outcomes	Standard met
Programme	Positive

5. Recommendation

In this report, one recommendation by the panel has been listed. For the sake of clarity, this has been reproduced here.

- To have any further growth of the programme in student numbers be matched by recruitment of extra staff.

Appendix: Assessment process

The University of Amsterdam requested evaluation agency Certiked VBI to support the limited framework programme assessment process for the Master of Logic 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 of September 2018 (officially published in Stcrt. 2019 no. 3198, on 29 January 2019).

Having conferred with Master of Logic programme management, 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. J.F. Horty, Professor, Philosophy Department and Institute for Advanced Computer Studies, and Affiliate Professor, Computer Science Department, University of Maryland, United States (panel chair);
- Prof. dr. L. McNally, Professor of Linguistics (Cathedràtica d'Universitat), Departament de Traducció i Ciències del Llenguatge, Universitat Pompeu Fabra, Barcelona, Spain (panel member);
- Prof. dr. L.S. Moss, Professor of Mathematics, Department of Mathematics, Indiana University, Bloomington, United States (panel member);
- L. Weedage BSc, student Master Applied Mathematics, University of Twente, the Netherlands (student member).

On behalf of Certiked, drs. W. Vercooteren 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 as well as 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 have given their approval.

To prepare the assessment process, the process coordinator and management of the programme met 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 of preparing for the site visit, programme management and the Certiked process coordinator had contact to fine-tune the process. The activities prior to the site visit were 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 most recent years. Acting on behalf of the assessment panel, the process coordinator selected fifteen final projects from this list. The grade distribution in the selection was ensured to conform to the grade distribution in the list, sent by programme management. In the selection of the final projects, all specialisations in the programme were evenly represented.

The panel chair and the panel members were sent the self-assessment report of the programme. The self-assessment report addressed the standards of the NVAO Assessment framework. In this report, the student chapter was included. The appendices to the self-assessment report comprised, among others, the domain-specific framework of reference, overview of developments since the previous external assessment, intended learning outcomes, curriculum overview, course descriptions, Teaching and Examination Regulations, assessment policy, staff overview, list of students' publications, including those based upon Master theses, and student and alumni survey results. The expert panel members were forwarded a number of final projects of the programme graduates, these final projects being part of the selection made by the process coordinator. The panel members were also sent the Trained Eye document of the Certiked evaluation agency, this document being the elaboration of the NVAO Assessment framework. The panel chair studied the NVAO profile of panel chairs and agreed to conduct the assessment process in line with the profile.

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 submitted 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 final projects 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 20 January 2020, the site visit took place on the University of Amsterdam campus. The site visit schedule was in accordance with the planned schedule. The schedule was as follows.

- 09.00 – 09.45 Faculty Board representatives and programme management
- 09.45 – 11.00 Programme management and core lecturers
- 11.15 – 12.00 Chair and members Examinations Board
- 12.00 – 12.30 Lunch panel (closed session)
- 12.30 – 13.00 Open office hours
- 13.00 – 14.00 Lecturers and final project examiners
- 14.00 – 14.45 Students, Programme Committee student member, and alumni
- 14.45 – 16.15 Deliberations panel (closed session)
- 16.15 – 16.30 Main findings presented by chair to programme representatives
- 16.30 – 17.00 Development dialogue of panel and programme management

Open office hours were communicated two weeks prior to the site visit by programme management to employees, lecturers and students. No persons presented themselves during these open office hours. On the day of the site visit, panel members were given the opportunity to study course material and examinations of courses, Programme Committee and Examinations Board minutes and annual reports.

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 findings, considerations, assessments and recommendations to programme representatives.

Clearly separated from the process of the programme assessment, the 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 was given two weeks to respond. Having been corrected for these factual inaccuracies, the Certiked bureau sent the report to the University Board to accompany their request for re-accreditation of this programme.