

MSc Oral Health Sciences
(wo-master; joint degree)
University of Amsterdam
VU University Amsterdam

2 February 2016

NVAO limited initial accreditation

Panel report

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1 Executive Summary

The Accreditation Organisation of the Netherlands and Flanders (NVAO) received a request for an initial accreditation procedure, including programme documents, regarding a new wo-master¹ Oral Health Sciences at ACTA², leading to a joint degree offered by the University of Amsterdam and the VU University Amsterdam. NVAO convened an international expert panel, which studied the available information and discussed the proposed programme with representatives of the institution and the programme during a site visit.

The following considerations have played an important role in the panel's assessment.

The postgraduate MSc programme in Oral Health Sciences aims to attract EU-registered dentists who have a Dutch or equivalent EU master degree in Dentistry and who have been working in a general dental practice for a number of years. These students will acquire broader and deepened academic knowledge and more in-depth clinical skills in oral health sciences and specifically in one of the four career profiles: Endodontology, Oral Implantology and Implant Prosthodontics, Oral Kinesiology, and Periodontology. They will thus develop into differentiated dentists with academic knowledge and research skills beyond the master degree and with high professional skills in one of the domains of dentistry. Graduates will be the referral base for dentists who encounter special problems with their patients. They will advocate dental care in an evidence based manner.

The full-time 180 EC master programme complies with the relevant national and international frameworks: the General Educational Framework Dentistry in the Netherlands (Raamplan 2008), the intended competency based learning outcomes for a master programme dentistry of the European professional organisation ADEE, the professional specialist profiles according to the European Society for Endodontology ESE and the European Federation for Periodontology EFP, and the master level of the Dublin descriptors, aiming at an advanced professional academic educational programme. This implies that graduates of the programme will be able to resolve complicated dentistry problems in a multi-disciplinary practice. The panel concludes, therefore, that Standard 1 is met.

The programme comprises 180 EC, spread over a curriculum of three years. Fifty per cent of the programme is devoted to clinical skills. The programme consists of four components: generic modules (32 EC), profile modules (30 EC), research track (28 EC) and clinical skills (90 EC). The panel is satisfied with the balance between the four components of the programme, providing an adequate mix of professional and scientific training. Previously, the four profiles (Endodontology, Periodontology, Oral Kinesiology, and Oral Implantology) were offered as separate postgraduate programmes. The proposed postgraduate master programme in Oral Health Sciences aims to reinforce the interdisciplinary approach by the generic modules and to strengthen the academic approach by adding the research track. The panel advises including more additional multidisciplinary components into the curriculum and encouraging students to work together and exchange their clinical experiences throughout the programme. The proposed monthly case-discussions are a useful contribution towards such horizontal integration.

¹ Wetenschappelijk onderwijs (wo) or academic programme

² Academisch Centrum Tandheelkunde Amsterdam (ACTA) or Academic Centre of Dentistry Amsterdam

The didactic approach is adequate: the competences return throughout the curriculum with increasing complexity and depth and decreasing level of teacher supervision. The programme stimulates active and individual learning. The balance of contact hours and self-study is in agreement with the principles of adult education. The workload of the curriculum is reasonable. The teaching staff is involved in relevant scientific research and in advanced academic treatment of patients with complex dentistry problems. The students confirmed that the teaching staff is available for students when they have questions or encounter problems. The admission criteria and the intake procedure for the programme are logical and clear. The teaching and clinical facilities are outstanding. The panel concludes that the quality of the curriculum, the staff and the facilities are at a high academic and professional level. They are in accordance with the intended learning outcomes of the programme and provide a strong teaching-learning environment for the students. The programme meets Standard 2.

The panel has studied the Teaching and Examination Regulations and found them to be in order. Responsibilities and roles are clearly assigned. An Examinations Board will be installed for the quality assurance of the assessment programme. The assessment system is based on ACTA's 2012-2013 Assessment Policy. The panel finds that the system of assessment is characterised by multiple and diverse forms of assessments, according to modern educational principles. The formative and summative assessments are well balanced. The panel appreciates the use of a portfolio to assess the progress of the students' knowledge, skills and attitude. The master thesis is critically assessed including an external review. The programme meets Standard 3.

The panel has ascertained that the University of Amsterdam and the VU University Amsterdam guarantee continuity for students to complete the programme and that the financial provisions are sufficient. The panel is, therefore, convinced of the viability of the programme. The programme meets Standard 4.

In preparation of the site visit, the panel has studied a sample of sixteen postgraduate theses. All of these are of the required master level. The differences in quality are adequately reflected in the assessments. Some of the papers were published in a peer-reviewed journal. In those cases, the student is one of the co-authors. The panel advises making sure that the individual input of a student in writing the final thesis in the postgraduate master programme can be determined. The current postgraduate diploma and – as is expected – the postgraduate master degree qualify graduates to be accepted by the relevant Dutch Societies (for Endodontology, Periodontology, Oral Implantology, Oral Kinesiology). On the basis of the previous postgraduate programmes (theses/publications, graduates' evaluation and the graduates' acceptance into the Dutch dentist Societies), the panel is confident that graduates of the new postgraduate master programme will achieve the intended learning outcomes. The programme meets Standard 5.

A formal cooperation agreement between the University of Amsterdam and the VU University Amsterdam for this joint postgraduate master's programme states how responsibilities and rights are regulated. The panel concludes that the conditions for a joint degree have been met. The panel confirms that the programme in Oral Health Sciences fits best in the sector Health, as proposed by the two universities involved.

Based on the review of the information dossier and the findings during the site visit, especially the discussion with students and staff, the panel assesses the quality of the programme as positive and concludes that the five assessment standards are met. Also the requirements for a joint degree are fully met. Given these considerations, the panel advises NVAO taking a positive decision regarding the quality of the proposed programme wo-master Oral Health Sciences leading to a joint degree offered by the University of Amsterdam and the VU University Amsterdam.

The Hague, 2 February 2016

On behalf of the expert panel convened to assess the wo-master Oral Health Sciences (joint degree) at the University of Amsterdam and the VU University Amsterdam,

Prof. dr. Harry Hillen
(chair)

Dr. Marianne van der Weiden
(secretary)

2 Introduction

NVAO received a request for an initial accreditation procedure, including programme documents, regarding a new wo-master Oral Health Sciences at ACTA, leading to a joint degree offered by the University of Amsterdam and the VU University Amsterdam. The request was received on 6 July 2015.

An initial accreditation procedure is required when a recognised institution wants to offer a programme and award a recognised bachelor or master's degree. To a certain extent, initial accreditation demands a different approach to the accreditation procedure for programmes already being offered. Initial accreditation is in fact an *ex ante* assessment of a programme, and a programme becomes subject to the normal accreditation procedures once initial accreditation has been granted.

Since the programme targets an international student body, NVAO convened an international panel of experts. The panel consisted of:

- Prof. dr. Harry Hillen, em. professor of Internal Medicine and dean emeritus, Faculty of Health, Medicine and Life Sciences, Maastricht University, Netherlands (*chair*);
- Prof. dr. Nikolaos Donos, professor of Periodontology and Restorative Dental Sciences, Eastman Dental Institute, Eastman Dental Hospital, UCL, London;
- Prof. dr. Dag Ørstavik, professor and head, Department of Endodontics, Dental Faculty, University of Oslo, Norway;
- Mirl Burger BSc, Master student Dentistry, Radboud University Nijmegen, Netherlands (*student member*).

On behalf of the NVAO, Michèle Wera MA, was responsible for the process-coordination. Dr. Marianne van der Weiden acted as secretary to the panel.

This composition reflects the expertise deemed necessary by NVAO. Annex 1 provides short curricula vitae of the panel members. The panel members and the secretary signed a statement of independence and confidentiality.

The panel has based its assessment on the standards and criteria described in the NVAO Initial Accreditation Framework (Stcrt. 2014, nr 36791), the protocol regarding joint degrees, the explanatory notes on the assessment of postgraduate programmes and the instruction on the assessment of master theses.

The following procedure was undertaken. The panel members studied the programme documents (Annex 3: Documents reviewed) regarding the proposed programme. Their first impressions were sent to the secretary, in order to outline these remarks within the accreditation framework and detect the items to be clarified during the site visit.

Based on its first findings, the panel organised a preparatory meeting before the site visit on 27 October 2015. The site visit took place on 27 and 28 October 2015 at ACTA (Annex 2: Schedule of the site visit).

The panel formulated its preliminary assessments per standard at the end of the site visit. These were based on the findings of the site visit, and building on the assessment of the

programme documents. It turned out that the programme would only partially meet the criteria on standards 1 and 2. The preliminary outcomes of the review resulted in ACTA's proposal to revise the programme towards a full time master programme in order to meet all international requirements. It should be noted that this 180 EC programme was already in place but that accreditation was only sought for 144 EC for organisational reasons. The panel consented to review the revised master programme before reaching a final conclusion and decided that the additional peer review could be done by e-mail or written judgement of the revised information dossier without an additional meeting of the panel.

NVAO received the amendment on 1 December 2015. The master programme has been changed from a part-time programme of 144 EC to a full-time programme of 180 EC. The appropriate changes are included in the revised information dossier, the Rules and Regulations document and in the Study Guide. The panel found the information regarding the full-time master programme to be clear and informative. The revised documents are the formal documents for the application for the initial accreditation. The report is therefore based on the revised documents.

The secretary sent a draft version of the report to the panel members for their comments. The chair approved the final version of the report. The programme management received the report for a check on factual inaccuracies on 26 January 2016 and reacted on 2 February 2016 with no further comments. The panel declares that this advice was drawn up independently. It was submitted to NVAO on 2 February 2016.

3 Description of the programme

3.1 General

Country	: The Netherlands
Institution	: University of Amsterdam and VU University Amsterdam
Programme	: Oral Health Sciences
Level	: master
Orientation	: wo (academic)
Profiles	: Endodontology, Oral Implantology and Implant Prosthodontics, Oral Kinesiology, Periodontology
Degree	: MSc, joint degree
Location	: Amsterdam
Study Load (EC)	: 180 EC (after amendment)
Field of Study	: Health (as confirmed by the panel)

3.2 Profile of the institution

The Faculties of Dentistry at the University of Amsterdam and the VU University Amsterdam have developed the Academisch Centrum Tandheelkunde Amsterdam (ACTA, Academic Centre of Dentistry Amsterdam) as a collaborative venture since 1984. ACTA is a university institution for the training of dentists capable of practicing this profession and of working as scientists.

ACTA is a comprehensive dental faculty, in which all aspects of dentistry are included in the curriculum, the research programme and patient care. Each of the academic disciplines in this area is engaged in developing multi-disciplinary activities, both in a national and international context. ACTA provides education to 800 students at bachelor, master and postgraduate level and employs approximately 500 staff members.

3.3 Profile of the programme

The postgraduate MSc programme in Oral Health Sciences (joint degree) aims to attract EU-registered dentists who have a Dutch or equivalent EU master degree in Dentistry and who have been working in a general dental practice for a number of years. These students will acquire broader and deepened academic knowledge and more in-depth clinical skills in oral health sciences and specifically in one of the four career profiles. They will thus develop into differentiated dentists with academic knowledge and research skills beyond the master degree and with high professional skills in one of the domains of dentistry. Graduates will be the referral base for dentists who encounter special problems with their patients. They will advocate dental care in an evidence based manner.

Previously, ACTA offered a range of internationally oriented non-government funded postgraduate programmes in various dental disciplines. These are now joined into a formal accredited and integrated postgraduate MSc programme.

4 Assessment per standard

4.1 Intended learning outcomes

Standard 1 – The intended learning outcomes of the programme have been concretised with regard to content, level and orientation; they meet international requirements.

Findings

The postgraduate master programme in Oral Health Sciences is targeted at candidates with a dentistry degree and at least one year of experience in the general dental practice. Graduates of the programme will have attained level 5 (experienced) of the General Educational Framework Dentistry 2008, capable of treating complex oral health problems. They will be working as a differentiated dentist, clearly recognisable by the profession, and treat patients who are referred to them by general dentists. Most of them will work in an interdisciplinary and multidisciplinary setting. Effective harmonisation and communication between all involved practitioners is crucial. In order to work as leaders in their field, it is important that they have acquired advanced research attitudes and skills in aid of evidence-based dentistry.

In the information dossier the programme's intended learning outcomes are described, covering the seven domains of the General Educational Framework Dentistry:

1. resolving clinical dentistry problems;
2. scientific reasoning and conduct;
3. communication and collaboration;
4. socially responsible conduct;
5. organising oral care;
6. dentistry skills;
7. professionalism.

These are worked out in detail in one of the appendices to the information dossier. They comply with the competences described by the Association for Dental Education Europe (ADEE). The panel concludes that the intended learning outcomes are concrete and in line with the national and European dentistry frameworks. They are in accordance with the required master level as described in terms of the Dublin descriptors.

As regards the educational objectives of domain 1 (resolving clinical dentistry problems) and 6 (dentistry skills), the programme refers to the professional requirements as formulated by the various national and international professional associations. European guidelines have been formulated for Endodontology by the European Society for Endodontology (ESE) and for Periodontology by the European Federation for Periodontology (EFP). No such international requirements have been formulated for Oral Kinesiology and Oral Implantology. The originally proposed programme of 144 EC did not fully meet the ESE and EFP requirements. In the revised programme, however, the final qualifications proposed by ESE and EFP (full-time, three years, 180 EC) have been adopted. The same study load applies to the graduation profiles in Oral Implantology and Oral Kinesiology, although no European educational standards exist in those fields. The panel appreciates the changes adopted in the revised proposal and is of the opinion that this compliance with European professional standards is essential.

In the information dossier, the postgraduate master programme in Oral Health Sciences is compared with other programmes in the Netherlands and abroad. The broad multidisciplinary approach and the emphasis on research activities distinguish this programme from other offerings. It corresponds most strongly with the postgraduate master programmes in Specialised Oral Care taught at the universities of Ghent and Leuven. They offer a 60 EC academic programme that, combined with the separate but compulsory clinical component (120 EC), is similar to the ACTA programme. ACTA, however, has opted to seek NVAO accreditation for both academic and clinical components (180 ECTS in total).

Considerations

Based on the documentation, the panel concludes that the programme complies with the relevant national and international frameworks: the General Educational Framework Dentistry in the Netherlands (Raamplan 2008), the intended competency based learning outcomes for a master programme dentistry of the European professional organisation ADEE, the professional specialist profiles according to ESE and EFP, and the master level of the Dublin descriptors, aiming at an advanced professional academic educational programme. This implies that graduates of the programme will be able to resolve complicated dentistry problems in a multi-disciplinary practice.

Conclusion

Meets the standard.

4.2 Teaching-learning environment

Standard 2 – The curriculum, staff and programme-specific services and facilities enable incoming students to achieve the intended learning outcomes.

Findings

Structure and contents of the programme

The programme comprises 180 EC, spread over a curriculum of three years. Fifty per cent of the programme is devoted to clinical skills. The programme consists of four components:

- generic modules (32 EC);
- profile modules (30 EC);
- research track (28 EC);
- clinical skills (90 EC).

Previously, the four profiles (Endodontology, Periodontology, Oral Kinesiology, and Oral Implantology) were offered as separate postgraduate programmes. The proposed postgraduate master programme in Oral Health Sciences aims to combine the best practices of the previous programmes, to reinforce the interdisciplinary approach by the generic modules and to strengthen the academic approach by adding the research track.

The basic theory modules common to all profiles (generic modules) comprise 20 EC and are aimed at acquiring more in-depth academic skills (through the Evidence Based Dentistry, Methods and Statistics modules) and the communication skills needed to write and present scientific articles (Scientific English writing and presenting). Students also acquire knowledge on the resolution of multidisciplinary problems from related disciplines (by means of the Oral Biology, Psychology, and Pharmacology modules). Another generic component of the programme is case presentations and research presentations (totaling 12 EC).

All students in the four profiles and at least one lecturer from each profile attend these meetings. The aim is to present and discuss clinical cases and scientific research in a multidisciplinary fashion and to enhance integration and interaction between the profiles.

Students take two or three profile modules every academic year, representing a total study load of 30 EC. The profile modules make up the core of the main profile and are provided by the responsible section of the department of Oral Health Sciences. Students will also take part in current literature discussions over the course of all three academic years, during which they will discuss recent scientific literature from the field of study.

Research constitutes a significant component of the programme. Students will conduct their own research projects within the section, culminating in a publishable article. Over the course of the first academic year, students will start orienting themselves to a research theme within the section and study the relevant literature. They will also be allocated a research supervisor at this point. By the end of the first year, the student will have formulated and described the research question and hypothesis. The student will then spend the second year setting up the research project and gathering and analysing (part of) the research data. The third year will be largely spent writing an article.

Students will spend half of their study time acquiring more in-depth clinical skills within the selected career profile. Clinical sessions will be organised for each profile by the responsible section. Students will work in the clinic under the supervision of a clinical teacher, where they will have the opportunity to gain more in-depth insight into specific problems and acquire skills. These activities will take place within an integrated structure, based around a multidisciplinary approach to diagnostics and indication/treatment planning. Each student will be charged with the care of a multitude of patients.

The panel is satisfied with the balance between the four components of the programme, providing an adequate mix of professional and scientific training. Education in research and clinical skills are combined throughout the programme. The panel understands that the integration of the four profiles, thus ensuring the multidisciplinary approach, is mainly achieved by the generic modules. The panel finds this rather limited for a programme that aims not to be four separate programmes, but to offer one integrated curriculum. The panel advises including more additional multidisciplinary components into the curriculum and encouraging students to work together and exchange their clinical experiences throughout the programme. The monthly case-discussions (see below) are a useful contribution towards such horizontal integration.

The panel has examined the study materials (books, literature, instruction materials) and concludes that all are at master level. The generic courses go beyond that level, e.g. in methods and statistics. Generally, the materials are up to date and cover the required topics. The panel advises paying continuous attention to a broad academic education of ethics, history and law of dentistry.

Didactic approach

The curriculum is competence-based and teaches students the real-world combinations of knowledge, skills and attitudes in the seven domains listed above (see 4.1). The modules consist of lectures and seminars. The curriculum also includes assignments and cases, and students' own experiences or work are used as input for the education, where possible. Students often work together to resolve a problem on the basis of the PICO methodology

(Problem, Intervention, Comparison, and Outcome) and hold a presentation on the subject. The programme includes case-presentations and review meetings organised by the relevant section, on a weekly basis. Relevant scientific literature is part of the discussions. All postgraduate students are expected to actively participate. Multidisciplinary case discussions constitute a special variant of the case presentations and patient meetings; this will be with the lecturers and teachers of all four career profiles (thus interdisciplinary). Throughout the programme, students discuss interesting cases on a monthly basis. When the students from the various profiles meet to discuss their cases, they are encouraged to use relevant scientific literature. These multidisciplinary meetings offer the students an opportunity to improve their communication skills.

The competences return throughout the curriculum with increasing complexity and depth and decreasing level of teacher supervision. The programme stimulates active and individual learning by paying attention to the application of theoretical knowledge and by organising case discussions and scientific literature discussions. Students are taught to direct their own learning process and to plan their career so that, after graduation (at the level of 'experienced'), they can continue their development to the highest level of 'experts'.

The panel agrees with these principles. The balance between theory and practice is adequate and the amount of supervision in clinical work corresponds with the development of the students over the years. Teacher supervision decreases as the student matures. The programme uses the principles of adult education: it builds on and utilises the knowledge and skills of the admitted students.

Through clinical conferences, clinical practice and literature discussions, the programme aims at building a learning community of students and staff. The panel is satisfied with the programme's didactic approach.

Staff

The generic modules are taught by lecturers hired from the sections of the Oral Health Sciences department within ACTA. The profile modules and all clinical and thesis supervision activities are conducted by a core team of lecturers from the responsible sections. Lecturers generally conduct research in their specific fields and often also teach at the regular master's programme. Their backgrounds are described in the information dossier. The panel concludes that the teaching staff is experienced and competent. Generally, they are experts in their field, active in research and publishing and directly involved in the supervision of students. The teaching staff is available for students when they have questions or encounter problems. The students confirmed this during the site visit.

The quantity of staff is clearly sufficient: the staff-student ratio is approximately 1:6. The panel notes that only half of the core staff team members have a PhD (52 per cent). For this postgraduate academic master programme, the panel advises increasing the percentage of core teaching staff with a PhD.

Responsibilities for the overall programme, profiles and modules are assigned clearly. The role of programme director rotates among the profile directors (two years at a time). The programme director is supported by the programme committee, consisting of all four profile directors. The organisation of the programme is facilitated by a programme coordinator (0.4 FTE). The panel is of the opinion that the programme is well-organised.

There is one Board of Studies ('opleidingscommissie') for all dentistry programmes (bachelor, master, postgraduate master). It consists of an equal number of staff members and students and performs the legal role of advisory body to the Faculty Board on issues of quality. The panel advises monitoring if this construction will allow sufficient attention for the relatively small postgraduate programme.

Admission procedure

The programme is targeted at candidates with a dentistry degree recognised under Dutch law (a BIG registration in the Netherlands or a recognised European dentistry title). In addition, candidates must have at least one year of experience in the general dental practice, except for Oral Implantology, where two to five years of experience is required. Having more experience counts positively toward admission. Candidates must prove their proficiency in the English language (a TOEFL test with a minimum score of 550 or an equivalent test), since the programme is taught in English. The admission procedure consists of studying the candidates' curricula vitae and references, and staff members holding interviews with prospective students. It is overseen by the Admissions Board, consisting of the four profile directors. The panel concludes that the programme has set up an adequate admission procedure.

The number of applications (75) far exceeds the number of available places (12). Thirty to fifty per cent of the students come from abroad. In order to treat patients, candidates must be able to communicate in Dutch. They are interviewed before selection and, upon admission, must declare their willingness to learn sufficient Dutch. They can use the general university facilities for this. The profile director observes the student during patient contact to decide whether the student achieves the minimum level to work with patients independently. The students told the panel that this works satisfactorily.

Services and facilities

During the site visit the panel took a tour through the facilities. Both the teaching and clinical facilities are outstanding. Students have their own workstations for deskwork and have access to modern dentistry units, operating theatres, consulting rooms and a physiotherapy facility. Students can access academic literature digitally from their desktop computer.

The number of patients and the range of complexity of cases provide the students with sufficient opportunities to practice their skills and competences. In the past this has sometimes been a problem, but at the moment there is no shortage of patients. The panel advises monitoring this closely, since the number of patients is crucial for the students' learning process.

Considerations

On the basis of the written documentation and the discussions with various groups during the site visit, the panel is of the opinion that the full-time, three year educational programme is in line with the requirements of the relevant European professional organisations. The panel finds that the content of the programme is in balance with the intended learning outcomes and that the structure of the programme shows a good balance of professional and scientific training. The horizontal and vertical integration of the programme supports the combination of professional and scientific training and will foster a growing autonomy of the students. The programme is based on modern and sound didactical principles. The balance of contact hours and self-study is in agreement with the principles of adult education. The workload of the curriculum is reasonable. The teaching staff is involved in relevant scientific research and in advanced academic treatment of patients with complex dentistry problems. The admission

criteria for the programme are logical and clear. Therefore, the panel concludes that the quality of the curriculum, the staff and facilities are at a high academic and professional level, are in accordance with the intended learning outcomes of the programme and provide a strong teaching-learning environment for the students.

Conclusion

Meets the standard.

4.3 Assessment

Standard 3 – The programme has an adequate assessment system in place.

Findings

All assessments in the postgraduate master's programme are based on ACTA's 2012-2013 Assessment Policy. Assessment formats for the individual modules are determined on the basis of the competences to be achieved, in order to ensure coherence between teaching methods, assessment formats and educational objectives.

All generic modules culminate in a written test, an assignment and/or the elaboration of a case or presentation. The completion of some modules is also subject to active participation in lectures and meetings. In the profile modules, most tests consist of written reports (open questions) on research papers or academic presentations. These tests serve to assess higher order skills such as analysis, synthesis and creation.

The assessment of clinical activities consists of day-to-day formative assessment by the clinical lecturer, aimed at feedback and learning. Summative assessment is on the basis of the portfolio, aimed at determining whether the student has attained the required clinical competences. Students will be required to supplement their portfolios with case descriptions and presentations that demonstrate their compliance with the relevant criteria. These case descriptions may be based on their patient dossier. The portfolio will be discussed over the course of two annual assessments, one of which will serve to monitor progress (formative) and one – held at the end of the year – to assess progress (summative). During the site visit, the panel studied a number of portfolios of the current postgraduate programmes. The content list and feedback forms to be used in the postgraduate master's programme are still under development. The panel advises formulating clear criteria and making sure that students receive not only oral, but also written feedback.

The intermediate products of the research track will be assessed at the end of years one and two. The final assessment will be at the end of the third year on the basis of the scientific article and final presentation and defense. Assessment of the research track is part of the final presentations. Multiple assessors will assess the research track. The various process steps, intermediate products and assessment criteria have been described in the Research Track Manual. The panel found this information to be clear.

At the end of the third year, both clinical activities and the work done in the research track will be assessed during final presentations where students must demonstrate their proficiency in the required competences before a broad committee. At minimum, this committee will be composed of the research supervisor, the profile director and an international expert. The student gives two presentations followed by a defense: in one presentation the student discusses a selection of his/her clinical cases; the other presentation is focused on the

scientific article. The final presentation procedures are described in the Teaching and Examination Regulations (OER).

The panel finds the system of assessment well considered. It shows a strong balance of different formative and summative assessments.

The panel has studied the Teaching and Examination Regulations and found them to be in order. Responsibilities and roles are clearly assigned. All module coordinators will be formally appointed as examiners for the component they have been charged with by the Examinations Board, and are thus responsible for the quality of testing and examinations. An Examinations Board will be appointed for the postgraduate master's programme in Oral Health Sciences, consisting of experienced Examinations Board members from the regular master's programme in Dentistry, and new members involved in the postgraduate master's programme in Oral Health Sciences. The Examinations Board will monitor and safeguard the programme's learning outcomes and the quality of testing and examinations.

Considerations

The panel finds that the system of assessment is characterised by multiple and diverse forms of assessments, according to modern educational principles. The formative and summative assessments are well balanced. The panel appreciates the use of a portfolio to assess the progress of the students' knowledge, skills and attitude. The master thesis is critically assessed including an external review. Responsibilities are clear and an Examinations Board will be installed for the quality assurance of the assessment programme.

Conclusion

Meets the standard.

4.4 Graduation guarantee and financial provisions

<i>Standard 4 – The institution guarantees students that they can complete the entire curriculum and makes sufficient financial provisions available.</i>

Findings

The information dossier describes the graduation guarantee and financial provisions for the programme. With a minimum intake of twelve students and a total of 36 postgraduate students enrolled in the entire programme, ACTA can offer the programme with a balanced budget. The proposed budget looks feasible to the panel.

The two universities involved have submitted a formal statement that they guarantee students the required continuity to complete the entire programme, even if it is decided to discontinue the programme. The dean of ACTA will ensure that all business and staff-related preconditions are sufficiently embedded to safeguard continued curricular quality.

Considerations

The panel has ascertained that the University of Amsterdam and the VU University Amsterdam guarantee continuity for students to complete the programme and that the financial provisions are sufficient. The panel is, therefore, convinced of the viability of the programme.

Conclusion

Meets the standard.

4.5 Achieved learning outcomes

Standard 5 – The programme demonstrates that the intended learning outcomes are achieved.

Findings

In preparation of the site visit, the panel has studied a sample of sixteen postgraduate theses. All of these are of the required master level. The differences in quality (satisfactory, good, and excellent) are adequately reflected in the assessments. Some of the papers were published in a peer-reviewed journal. In those cases the student is one of the co-authors. The panel advises making sure that the individual input of a student in writing the final thesis in the postgraduate master programme can be determined.

After completion of the programme, almost all graduates, Dutch and non-Dutch, stay in the Netherlands. Some of them continue as a PhD student or as a staff member at ACTA. The others are apparently needed by the Dutch market. The current postgraduate diploma and – as is expected – the postgraduate master degree qualify them to be accepted by the relevant Dutch Societies (for Endodontology, Periodontology, Oral Implantology, Oral Kinesiology respectively).

Students of the preceding postgraduate programmes told the panel that they were positive about their training and advanced education. The students valued the level of the programme as academically demanding, state of the art and supportive for their performance in professional practice.

Considerations

On the basis of the previous separate postgraduate programmes (theses/publications, graduates' evaluation and the graduates' acceptance into the Dutch dentist Societies), the panel is confident that graduates of the postgraduate master programme will achieve the intended learning outcomes.

Conclusion

Meets the standard.

4.6 Joint degree

Findings

The panel has received the required formal cooperation agreement between the University of Amsterdam and the VU University Amsterdam for this joint postgraduate master's programme, stating how responsibilities and rights are regulated. This cooperation agreement builds on the existing Gemeenschappelijke Regeling (Common Scheme) in which the two faculties of Dentistry have described their collaboration.

Considerations

The panel has taken note of the formal agreement. During the site visit, the panel was able to confirm the practical implementation of the programme as a truly joint undertaking, as could be seen from the common responsibilities, the input of staff members from both universities and the commitment of all involved. VU University Amsterdam and the University of Amsterdam have a long standing tradition of cooperation, also within ACTA. The panel, therefore, deduced the cooperation between the two institutions to be very solid. The panel regards this to be a sound foundation for this joint degree programme and a major factor for the continuity of the programme.

Conclusion

The programme meets all joint degree requirements, and therefore the panel advises NVAO to grant the programme the status of a joint degree programme.

4.7 Conclusion

Based on the review of the information dossier and the findings during the site visit, especially the discussion with students and staff, the panel assesses the quality of the programme as positive and concludes that the five assessment standards are met. The panel assesses the quality of the facilities as outstanding.

As the programme meets the joint degree requirements, the panel advises NVAO to grant the programme the status of a joint degree programme.

4.8 Recommendations

The panel recommends:

- improving and stimulating the further integration of the four profiles of the programme;
- increasing the broad academic education of ethics, history and law of dentistry;
- monitoring closely that a sufficient number of patients is available for the clinical training programme.

4.9 Advice on sector

The University of Amsterdam and the VU University Amsterdam propose that the postgraduate academic master programme in Oral Health Sciences be registered in the sector Health in the Central Register of Higher Education. The panel confirms that the postgraduate academic master programme in Oral Health Sciences fits best in the sector Health as suggested by the applicant.

5 Overview of the assessments

Standard	Assessment
1. Intended Learning outcomes <i>The intended learning outcomes of the programme have been concretised with regard to content, level and orientation; they meet international requirements</i>	Meets the standard.
2. Teaching-learning environment <i>The curriculum, staff and programme-specific services and facilities enable incoming students to achieve the intended learning outcomes.</i>	Meets the standard.
3. Assessment <i>The programme has an adequate assessment system in place.</i>	Meets the standard.
4. Graduation guarantee and financial provisions <i>The institution guarantees students that they can complete the entire curriculum and makes sufficient financial provisions available.</i>	Meets the standard.
5. Achieved learning outcomes <i>The programme demonstrates that the intended learning outcomes are achieved.</i>	Meets the standard.
Conclusion	Positive

Annex 1 – Panel

Prof. dr. Harry Hillen (*chair*) was trained as internist and specialist in hemato-oncology. In 1993 he was appointed as professor of Internal Medicine and Medical Oncology at Maastricht University. In 1996 he became head of the Department of Internal Medicine and director of the Internist specialty training at the Academic Hospital Maastricht. He has published over 100 scientific papers in the research domains of oncology and general internal medicine. In 2003 he was nominated as dean of the Faculty of Medicine at Maastricht University and in 2007 as dean of the Faculty of Health Medicine and Life Sciences (FHML). He was vice-president of the board of Maastricht University Medical Centre +. Medical training and education were fields of special interest during his academic career. Internationally, he was board member of the European Federation of Internal Medicine, and editor of the "European Journal of Internal Medicine". Since 2001 he is Fellow of the American College of Medicine. After his retirement, he became adviser to the Board of Maastricht University with assignments in international medical education and in international university ranking. In 2008 and 2011/12 he was the chairman of the accreditation committee for the undergraduate medical training and dentistry programmes in the Netherlands. In 2012, he also chaired the NVAO panel assessing four off-shore medical schools including Saba University School of Medicine. In 2013, he chaired various other accreditation committees, also for the institutional audit of Yerevan State Medical School (Yerevan, Armenia) and the accreditation assessment of the MD programme offered by that same university (NVAO project ARQATA funded by the World Bank).

Prof. dr. Nikolaos Donos qualified in dentistry at the Aristotle University of Thessaloniki, Greece in 1992 and he completed his training as a specialist in Periodontology at the Royal Dental College, University of Aarhus, Denmark in 1994. At the same year, he completed his Master of Science Degree in Periodontology. From September 1994 to September 1997, he was a PhD candidate at the Royal Dental College, Department of Periodontology, University of Aarhus, Denmark. In June 1998, he received his PhD degree following an open to the public defense. From September 1997 to September 1998 he was working as a periodontist in 3 private practices in Denmark and at the same time he was pursuing research at the Department of Periodontology, University of Aarhus, Denmark. From October 1998 to September 1999, he completed his military service as a Periodontist at the 251 Hellenic Airforce V.A. General Hospital, Department of Periodontology, in Athens, Greece. In October 1999, he was appointed as Clinical Lecturer at the Royal Dental College, Department of Oral & Maxillofacial Surgery, University of Aarhus Denmark and at the same time he joined three private clinics as a specialist in Periodontology, positions which he held until May 2001. In May 2000, he was granted the internationally prestigious ITI Straumann Fellowship and he moved to the Department of Periodontology & Fixed Prosthodontics, University of Berne, Switzerland where he continued further with his advanced clinical training in implantology and his research in guided bone regeneration.

In 2001 professor Donos joined the Eastman Dental Institute. He was appointed to the Chair and Head of the Periodontology in January 2005. He is currently the Director of Research Strategy of the UCL Eastman Dental Institute and the Chair of the Department of Clinical Research as well as the Lead of the Oral health Theme at the Joint UCLH/UCL Comprehensive Biomedicine Center. At the same time, he is the Head & Chair of Periodontology and Programme Director for the MclinDent training programme in Periodontology as well as co-Director for the training programme in Implant Dentistry.

Professor Donos is involved as editorial board member in a number of international and national peer-reviewed journals in the field of Periodontology and Implant Dentistry and has also published extensively in both fields.

Prof. dr. Dag Ørstavik is currently professor and chairman at the Department of Endodontics, Institute of Clinical Dentistry at the University of Oslo, Norway, since 2004. After his graduation in dentistry (1969) and biology (1972), he gained his PhD in microbiology in 1978 and his specialty degree in endodontics in 1984, all awarded by the University of Oslo. He has worked as a research associate at the Department of Microbiology and the Institute of Dental Research, University of Alabama at Birmingham, Alabama (1972-1973) and the Department of Oral Pathology, University of Oslo (1973), followed by an assistant professorship in Oslo. From 1978 until 2005, he was a research associate (1978-1980) and (senior) scientist (1980-2005) with NIOM, the Nordic Institute of Dental Materials. In that period, he was a professor at the Department of Operative Dentistry at the University of Oslo and a visiting professor of endodontics at the University of North Carolina at Chapel Hill. Dag Ørstavik has been an active researcher and teacher, has chaired the postgraduate programme committee of the Dental Faculty, University of Oslo (2009-2015) and has published 125 peer reviewed publications (PubMed).

Mirl Burger BSc (*student member*)

Education

09/2014 – present MSc Dentistry, Radboud University Nijmegen, the Netherlands.

09/2011 – 08/2014 BSc Dentistry, Radboud University Nijmegen, the Netherlands.

09/2010 – 08/2011 BA English language and culture, University of Groningen, the Netherlands.

Experience

02/2015 – present Assistant teacher of first year dentistry students, RadboudUMC Nijmegen

09/2012 – present Student representative in advisory board for dental school (OMTT) at Radboud University.

04/2011 – present Ambassador of the Radboud University for dentistry at study information activities.

12/2012 – 12/2013 Vice-president of the governing board of the dental students association at Radboud University (TFVN). Still member of multiple committees within the association, also (been) chair, secretary, and treasurer of several committees.

Assisting staff:

- Dr. Marianne van der Weiden, secretary to the panel;
- Michèle Wera MA, policy advisor NVAO and process coordinator.

All panel members and the secretary signed a declaration of independence and confidentiality prior to the assessment process.

Annex 2 – Site visit

The panel undertook a site visit on 27 and 28 October 2015 as part of the external assessment procedure regarding the wo-master Oral Health Sciences at the University of Amsterdam and the VU University Amsterdam.

Tuesday 27 October 2015

13.00 – 15.00 Preparatory panel meeting during lunch (*closed meeting*)

15.00 – 15.15 Short presentation new programme (*applicant*)

- prof.dr. B.G. Loos, programme director

15.15 – 16.00 Tour through the buildings and facilities
(tour restricted to clinical facilities for these master students)

- prof.dr. B.G. Loos, programme director

16.00 – 17.30 Preparatory panel meeting + evaluation master thesis/articles written by students of the previous professional differentiation programmes (*continued*)

17.30 – 18.15 Session 3bis – Session with students of each of the four previous professional differentiation programmes

- mr. I. Pitzurra, 1st yr Periodontology
- mrs. D. Groot-Kuin, 2nd yr Endodontology
- mrs. E. Konstantinidi, 3rd yr Endodontology
- mrs. M. Thymi, 3rd yr Oral Kinesiology

Wednesday 28 October 2015

09.00 – 09.30 Preparatory meeting panel (*continued*)

09.30 – 10.15 Session 1 – Programme management and designers curriculum

- prof.dr. A.J. Feilzer, Dean
- dr. H. Shemesh, profile director Endodontology
- prof.dr. B.G. Loos, programme director & profile director Periodontology
- prof.dr. D. Wismeijer, profile director Oral Implantology
- prof.dr. F. Lobbezoo, profile director Oral Kinesiology
- dr. T. Timmers, programme coordinator, quality assurance officer

10.30 – 11.30 Session 2 – Teaching staff

- mrs. drs. B.M.T. Tulp, Chef de Clinique Endodontology
- drs. J. Cosse, Oral Implantology
- drs. P. Wetselaar, Chef de Clinique Oral Kinesiology
- em.prof.dr. U. van der Velden, Periodontology
- dr. J.H. Koolstra, research track coordinator

11.45 – 12.15 Session 3 – Students and alumni

- mrs. C. Fijnheer, 1st yr Oral Implantology
- mrs. N. Entezami Rad, 2nd yr Oral Kinesiology
- mrs. M. Balta, 2nd yr Periodontology

- mr. R. Hoogeveen, 3rd yr Oral Implantology
- mrs. A. Baaij, alumna 2014 Endodontology
- mrs. C. Delatola, alumna 2015 Periodontology

12.15 – 12.45 Session 4 – Professional field

- dr. M.M. Danser, President, Dutch Society for Periodontology
- mrs. L.C. Snel, DDS, Concilium, Dutch Society for Oral Implantology
- mrs. L. Starremans, Board Member, Dutch Society for Oral Kinesiology

12.45 – 13.30 Lunch and panel meeting (*closed meeting*)

13.30 – 14.00 Session 5 – Examinations Board

- mrs. dr. I.A. Aartman, chair
- mrs. P. Rienderhoff LLM, secretary
- mrs. dr. E. Nicu, staff Periodontology
- prof.dr. E.C.I. Veerman, Oral Biochemistry

14.00 – 14.30 Session 6 – Board of Studies

- prof.dr. C. van Loveren, chair
- dr. A.J.M. Ligtenberg, secretary
- dr. R. Ozok, staff Endodontology
- mrs. P. Caputa, student Endodontology

14.45 – 15.00 Session 7 - Programme management

- prof.dr. A.J. Feilzer, Dean
- dr. H. Shemesh, profile director Endodontology
- prof.dr. B.G. Loos, programme director & profile director Periodontology
- prof.dr. D. Wismeijer, profile director Oral Implantology
- prof.dr. F. Lobbezoo, profile director Oral Kinesiology
- dr. T. Timmers, programme coordinator, quality assurance officer

15.00 – 16.00 Final panel meeting (*closed meeting*)

16.00 – 16.15 Feedback session

Annex 3 – Documents

Programme documents presented by the institution

Information dossier including appendices

Study guide 2015/2016

Teaching and examination regulations 2015/2016

Sample of sixteen final theses/publications of the previous postgraduate programmes

Documents made available during the site visit

Study materials for the generic modules: books and literature

Outline of the research track

Study materials for each of the four profiles: books, instruction materials and literature

A sample of student work (tests and exams) including assessment

A sample of student portfolios and theses per profile

Assessment forms

Documents made available after the site visit

Revised information dossier

Revised Rules and Regulations

Revised Study Guide

Annex 4 – Abbreviations

ACTA	Academisch Centrum Tandheelkunde Amsterdam (Academic Centre of Dentistry Amsterdam)
ba	bachelor
EC	European Credit
EFP	European Federation for Periodontology
ESE	European Society for Endodontology
ma	master
NVAO	Nederlands-Vlaamse Accreditatieorganisatie (Accreditation Organisation of the Netherlands and Flanders)
OER	Onderwijs- en Examenregeling (Teaching and Examination Regulations)
PICO	Problem, Intervention, Comparison, Outcome
wo	wetenschappelijk onderwijs (academic programme)

The panel report has been written at the request of NVAO as part of the initial accreditation procedure of the programme wo-master Oral Health Sciences (joint degree) of the University of Amsterdam and the VU University Amsterdam.

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