

Human Movement Sciences

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This report was finalized on 7 December 2012.

Report on the bachelor's and master's programme in Human Movement Sciences of VU University Amsterdam

This report is written according to the standards of the NVAO Assessment framework for limited programme assessments.

Administrative data of the programmes

Bachelor's programme

Name of the programme: Human Movement Sciences
CROHO number: 56950
Level: bachelor
Orientation: academic
Number of credits: 180 EC
Degree: Bachelor of Science
Mode(s) of study: full-time
Location(s): Amsterdam
Expiration of accreditation: 31 December 2013

Master's programme

Name of the programme: Human Movement Sciences
CROHO number: 66950
Level: master
Orientation: academic
Number of credits: 60 EC
Degree: Master of Science
Specializations: Sport, Health
Mode(s) of study: full-time
Location(s): Amsterdam
Expiration of accreditation: 31 December 2013

The site visit of the Human Movement Sciences assessment committee to the Faculty of Human Movement Sciences of VU University Amsterdam took place on 25 and 26 September 2012.

Administrative data of the institution

Name of the institution: VU University Amsterdam
Status of the institution: Government supported
Outcome of the institutional quality assurance assessment: Application submitted

Quantitative data regarding the programmes

The required quantitative data regarding the programmes are included in Appendix 5.

Composition of the assessment committee

The assessment committee was asked to assess the bachelor's programme Human Movement Sciences (CROHO number 56950) and the master's programme Human Movement Sciences (CROHO number 60050). The committee consisted of:

- Prof. N. Fowler (chair), head of Exercise and Sport Science Department, Manchester Metropolitan University;
- Prof. R.G.J. Meulenbroek, director of the master's programme Cognitive Neurosciences, Radboud University Nijmegen;
- Prof. P. Wylleman, professor of Sport Psychology, Vrije Universiteit Brussel;
- Prof. M. Rodgers, PT, PhD, chair of Department of Physical Therapy and Rehabilitation Sciences, University of Maryland School of Medicine;
- R. Plas, BSc, student of the research master in Fundamental and Clinical Human Movement Sciences, VU University, Amsterdam (present during the site visit at the University of Groningen);
- E. Middeljans, BSc, student of the master's programme in Human Movement Sciences, University of Groningen (present during the site visit at VU University, Amsterdam).

The committee consisted of a chairman and four members. One of the student members visited VU University Amsterdam, the other student member visited University of Groningen. Appendix 1 gives the abbreviated curricula vitae of the committee members.

The project leader of the assessment was Ms. N.M. Verseput, MSc, QANU staff member. Ms. P.G.A. Helming, MSc, was the secretary of the committee and present during the site visit. The site visit took place on 25 and 26 September 2012. The programme of the site visit is included as Appendix 6.

All members and the secretary of the committee signed a declaration of independence as required by the NVAO protocol to ensure that the committee members judge without bias, personal preference or personal interest, and the judgement is made without undue influence from the institute, the programme or other stakeholders (see Appendix 8).

Working method of the assessment committee

Task of the committee

The task of the assessment committee is to evaluate the bachelor's and master's programme in Human Movement Sciences at VU University Amsterdam and at the University of Groningen according to the accreditation criteria set by NVAO. Using these criteria, the committee is expected to assess different aspects of the quality of the programme, based on the information provided by the programme in the critical reflection and from discussions held during the site visit. The assessment report does contain recommendations made by the committee, but the emphasis lies on the assessment and justification of fundamental quality.

Preparatory phase

After receiving the critical reflection, the project leader checked the quality and completeness of the information provided. After approval, it was forwarded to the committee. In addition, on average each committee member received and read three theses for each of the two

programmes being assessed. The theses were selected by the project leader in consultation with the chair of the committee (see Appendix 7).

Before the site visit the project leader created a draft programme for the interviews (see Appendix 6). The draft programme was discussed with the chair of the committee and the programme coordinator. As requested by QANU, the programme coordinator carefully composed and selected representative panels.

Site visit

During the initial meeting at the start of the site visit, the committee discussed its findings based on the critical reflection. It also discussed its task and working methods and the proposal for the domain-specific requirements (see Appendix 2).

During the site visit, interviews were held with representatives of the Board, students, staff members, alumni, the Educational Committees, the Examination Committee and the student advisors. The committee also received and studied additional information, for example study books of several courses and reports from the meetings of the Educational Committees. When considered necessary, committee members could read additional theses during the site visit. The programme of the site visit also included a guided tour along the faculty's laboratories and educational facilities. A consultation hour was scheduled to give students and staff of the programmes the opportunity to talk to the committee informally, but no requests were received.

The committee used a significant part of the final day of the site visit to discuss the assessment of the programmes and prepare a preliminary outline of the findings. The site visit concluded with an oral presentation of these findings by the chairman, consisting of a general assessment and several specific observations and impressions of the programmes.

Scores of the standards

The assessments were performed in line with NVAO's accreditation framework. Each standard is scored on a four-point scale (unsatisfactory, satisfactory, good and excellent). The committee adopted the standard decision rules provided by NVAO. These are:

- **Generic quality:** The quality that can reasonably be expected in an international perspective from a higher education bachelor's or master's programme.
- **Unsatisfactory:** The programme does not meet the current generic quality standards and shows serious shortcomings in several areas.
- **Satisfactory:** The programme meets the current generic quality standards and shows an acceptable level across its entire spectrum.
- **Good:** The programme systematically surpasses the current generic quality standards across its entire spectrum.
- **Excellent:** The programme systematically well surpasses the current generic quality standards across its entire spectrum and is regarded as an (inter)national example.

Reporting

After the site visit the secretary wrote a draft report based on the committee's findings. This draft was first read and commented upon by the committee members before being sent to the relevant faculty to check for factual irregularities. Any comments of the faculty were discussed with the chair of the committee and, if necessary, with the other committee members. After that, the report was finalised.

Summary judgement

This report reflects the findings and considerations of the committee Human Movement Sciences on the bachelor's and master's programme in Human Movement Sciences of VU University Amsterdam. The committee's evaluation is based on information provided in the critical reflection and selected theses, additional documentation and interviews held during the site visit. The committee highlighted both positive aspects and ones which could be improved. Taking those aspects into consideration, the committee decided that both the bachelor's and master's programme fulfil the requirements of the criteria set by NVAO which are the conditions for accreditation.

Standard 1: Intended learning outcomes

The committee assesses this standard as **satisfactory** for both programmes.

The committee compared the final qualifications prepared by the programmes against the domain-specific reference framework for Human Movement Sciences and examined their profile and orientation. It concludes that the framework provides an adequate reflection of the domain and the general knowledge and skills that graduates should have acquired. It understands that the framework has a rather broad design, as each of the two institutes in Amsterdam and Groningen has different interpretations and accents concerning Human Movement Sciences. It is convinced that the content, theoretical richness and breadth make Human Movement Sciences worthwhile to invest in as a separate domain and profile.

The committee is satisfied with the profile and orientation of the programmes. It values their multidisciplinary character and the accent on individualization of study programmes. It concludes that, along with the explicit attention paid to scientific orientation, the intended learning outcomes have an acceptable focus on professional practice. Even so, the committee advises paying more attention to this professional orientation in the final qualifications of the bachelor's programme, to make it clearer to students the potential career routes for which the knowledge and skills are suitable.

According to the committee, the final qualifications of the bachelor's and master's programme reflect the domain-specific reference framework and the specified profiles. In addition, they clearly describe the different expectations of students at the bachelor and the master level. Even so, the committee feels that communication about the differences in intended learning outcomes between the bachelor's and master's degree programmes could be improved.

Standard 2: Teaching-learning environment

The committee assesses this standard as **satisfactory** for both programmes.

The committee concludes that the programme, the personnel and the programme-specific facilities enable bachelor and master students to acquire the final qualifications.

The committee values the educational concept of self-regulation and the way it is translated into teaching practice by the lecturers. It finds the dedicated focus on scientific training in the programmes praiseworthy. It notes that the attention paid to the professional practice is still limited despite the measures already taken. It advises improving this situation, especially in the bachelor's programme, which echoes a wish expressed by the students and alumni.

The committee confirmed that the curricula of the bachelor's and master's programmes in Human Movement Sciences have a clear, sophisticated design. It is pleased with the room for individualized study programmes in both curricula. This is supported by the bachelor minors, master tracks and a broad range of electives.

In contrast to the substantial intake rates, the completion rate of the bachelor's programme is low. Table 6 of the critical reflection suggests a similar pattern for the Master's programme, but this table also contains the (much lower) success rate of the premaster's programme, which in itself indicates the selection function of the premaster's programme. The committee expects that a clearer communication to students about the expected level of knowledge and skills before they start with the bachelor's programme and more proactive study support during the bachelor's programme will contribute to improving this situation. Because of the diversity in educational backgrounds and high drop-out rates, the committee also advises further exploration of the possibilities to extend the procedure of interviewing, testing and assessing students of the premaster's programme to the bachelor's programme.

The committee concludes that the teaching personnel is the greatest asset of the programmes. The lecturers are inspired, dedicated and have the correct expertise and level. The committee remarks that the work pressure is considerable. It urges the programmes to invest in reducing the staff-student ratio as soon as possible. It appreciates that the management is aware of the professionalization of lecturers and compliments it on the aspect that lecturers are actively involved in the quality of the teaching. The study facilities are barely adequate and the committee stresses that the bachelor's and master's programme would truly benefit from more extensive and up-to-date facilities and tools.

The committee confirmed that the programmes are well aware of the quality of the teaching environment, in which lecturers and students are closely involved and well supervised.

Standard 3: Assessment and achieved learning outcomes

The committee assesses this standard as **satisfactory** for both programmes.

The committee concluded that the programme has an adequate system of assessment and can demonstrate that the target final qualifications are realized. The faculty's assessment policy has been satisfactorily translated in both programmes. The committee is impressed with the commitment of the Examination Committee, and ascertained that it exercises sufficient control of the quality of assessments. It suggests implementing some more formal and structured inspection methods to examine the quality of assessments for efficiency reasons. It is pleased with the actual process concerning assessments and likes the fact that students appear well aware of the assessment criteria and procedures. The assessments as a whole are sufficiently varied according to the committee, and they adequately reflect the contents of the bachelor's and master's programme and the students' level. Considering the increasing student numbers, the committee stresses the importance of remaining vigilant to the balance between open-ended and multiple-choice questions in the bachelor assessments. It ascertained that the thesis procedures of both programmes are adequate.

The committee concluded that the bachelor and master students acquire an adequate level by the end of their programme. This was confirmed by the bachelor's theses and reports on the bachelor research projects, as well as the reports on the master research internships evaluated by the committee. The committee found that the target final qualifications of both programmes were realized, and there is an adequate difference in the level of achieved

learning outcomes between the bachelor and the master reports. Moreover, it concluded that graduates of both programmes are adequately prepared for their job positions.

General conclusion

The committee assesses the standards from the Assessment Framework for Limited Programme Assessments in the following way:

Bachelor's programme in Human Movement Sciences:

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	satisfactory
Standard 3: Assessment and achieved learning outcomes	satisfactory
General conclusion	satisfactory

Master's programme in Human Movement Sciences:

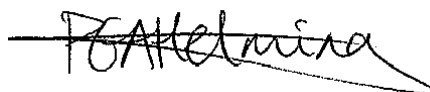
Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	satisfactory
Standard 3: Assessment and achieved learning outcomes	satisfactory
General conclusion	satisfactory

The chair and the secretary of the committee hereby declare that all members of the committee have studied this report and that they agree with the judgements laid down in it. They confirm that the assessment has been conducted in accordance with the demands relating to independence.

Date: 7 December 2012



Prof. N. Fowler



Ms. P.G.A. Helming, MSc

Description of the standards from the Assessment framework for limited programme assessments

Standard 1: Intended learning outcomes

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

Explanation:

As for level and orientation (bachelor or master; professional or academic), the intended learning outcomes fit into the Dutch qualifications framework. In addition, they tie in with the international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the programme.

1.1. Findings

In this standard the committee's findings are first examined against the domain-specific reference framework (1.1.1). Then attention is paid to the profile and orientation (1.1.2) and the level of final qualifications (1.1.3) of the bachelor's and master's programme Human Movement Sciences at VU University Amsterdam.

1.1.1. Domain-specific requirements

The institutes participating in the Human Movement Sciences cluster visit (VU University Amsterdam and University of Groningen) jointly prepared the domain-specific reference framework (hereafter the framework) (see Appendix 2). The framework covers both the bachelor's and master's degree programmes.

The committee studied the framework and ascertained that it properly reflects the domain of Human Movement Sciences. It observed that the framework has a rather broad design because of the differences in orientation between the two institutes. Still, it was pleased to establish that the institutes managed to reach an adequate understanding of the domain-specific reference framework. It noted that the domain-specific requirements are well defined and provide sufficient insight into the requirements set by professional colleagues. The framework specifies clearly the knowledge and skills that students must have at the bachelor and master levels.

The committee would like to encourage the challenge of making the framework known to prospective and current students, to make sure they are sufficiently aware of the objectives of Human Movement Sciences and the differences in orientation between VU University Amsterdam and University of Groningen.

The committee is delighted to note that Human Movement Sciences have grown into a discipline whose identity and independence are rarely disputed. It is positive that the programmes in Amsterdam and Groningen are acting confidently in this respect. It is convinced that the content, theoretical richness and breadth make it worthwhile to invest in Human Movement Sciences as a separate domain and profile. It is pleased with the passionate attitude of the management of both the Groningen and Amsterdam programmes towards the domain, as shown during the site visit.

1.1.2. Profile and orientation

In addition to the domain-specific reference framework, the critical reflection elaborates on the profile and orientation of the bachelor's and master's programme in Human Movement Sciences at VU University Amsterdam.

As regards content, the Amsterdam bachelor's and master's programme aim to have a multidisciplinary character. This implies they are related to practical disciplines (like physical education and physiotherapy) as well as scientific disciplines (such as psychology and anatomy). As described in the critical reflection, in general, biomechanics and exercise physiology are represented more prominently in the bachelor's and master's programme.

Furthermore, both programmes are oriented towards the three interrelated fields of:

- Sport, learning and performance;
- Rehabilitation and functional recovery;
- Motor function, cognition and healthy ageing.

These three fields are represented in the minors in the bachelor's programme, as well as in the electives and the two specializations in the master's programme. Within the field of sports, the Amsterdam programmes distinguish themselves by their focus on an individual athlete's physical, perceptual-motor and cognitive capacities, both within individual and team sports. In the area of ageing, the bachelor's and master's degree programmes profile specifically age-related afflictions.

In addition, the critical reflection states that the programmes aim to pay significant attention to the individualization of study programmes. This aspiration is reflected in flexible learning trajectories and special opportunities for talented and motivated students. For example, the honours programme and provisions for students who are 'top performers' on a national level in the field of sports, music or dance in the bachelor's programme, and the annual awards to support an external research internship for excellent master students.

The committee is pleased with the multidisciplinary character of both programmes. It values the profiling based on the three fields mentioned above; this adds to the coherence within and between the bachelor's and master's programme. It also appreciates the opportunities given to students to individualize their study programmes. This appreciation was confirmed by the students interviewed during the site visit. In particular, the provisions for 'top performers' are highly valued by the committee; they serve as a model for other programmes in the Netherlands.

Academic and professional orientation

According to the critical reflection the Amsterdam programmes put great emphasis on scientific and academic development, with an accent on acquiring practical experimental proficiency. The programmes strive to ensure that their graduates possess well-trained analytical, critical, creative and reflective skills. These skills should enable them to formulate and solve both theoretical and practical research questions. The programmes aim to train students to be socially and scientifically responsible and behave accordingly.

Although the final qualifications of both the bachelor's and master's programme include the preparation for a future career, either in science or as an academic, the critical reflection mentions some concerns about the orientation towards the professional field, especially in the bachelor's programme. It states that because of the substantial attention paid to scientific development, the amount of time available for preparing students for the professional field is limited. The committee recognizes the dilemma of scientific versus professional orientation, given the limited time available. It feels the explicit scientific orientation is a plus point of both programmes and is pleased to see that the professional orientation is included in the intended learning outcomes of both programmes. Still, the committee shares the concerns

and advises to the team to find solutions to intensify the orientation towards professional practice and vocational guidance in the bachelor's programme, in order to make it clear for which professions students are being trained. It feels that easy and less time-consuming solutions are available. For instance, more attention could be paid to the value of research in practice during courses, and communication on career possibilities could be enhanced (see standard 2 for more suggestions).

Overall, the committee is satisfied with the profiling and orientation of the Amsterdam bachelor's and master's programme in Human Movement Sciences. It finds that both programmes adequately reflect the domain-specific reference framework. It is satisfied with the programme's orientation, which prepares students in a scientific manner for the professional practice. It advises the bachelor programme to pay more explicit attention to the preparation for the professional practice in the intended learning outcomes.

1.1.3. Learning outcomes and level

The final qualifications of the Human Movement Sciences programmes are listed in Appendix 3.

In the critical reflection the bachelor's programme is described as an academic, university-level programme. It is designed to provide students with an academic training that emphasises the acquisition of essential analytical, critical, creative and reflective skills and conceptual knowledge so that they learn to comprehend the complexities and dynamics of human movement. The final qualifications of the master's programme aim at deepening and sharpening the scientific qualifications obtained at the bachelor's level. The critical reflection states that the qualifications of the master's programme should be mastered with more independence and a stronger emphasis on original research and analysis.

The committee examined whether the final qualifications match the profile and the orientation presented in the bachelor's and master's programme and the domain-specific reference framework. It found that the final qualifications of both programmes are formulated in a general and theoretical way, but adequately, and meet the requirements demanded of a Human Movement Sciences graduate at the scientific level. It also verified the relationship between the learning outcomes and the Dublin descriptors, which are considered to be general, internationally accepted descriptions of a bachelor's and master's programme. The committee observed that all Dublin descriptors are reflected in the learning outcomes for both programmes (see Appendix 3). Furthermore, it noted that there is a clear distinction between the formulated final qualifications at the bachelor level and those at the master level. However, during the site visit the committee found that the interviewed students and lecturers were not able to recite the differences in the level of the learning outcomes between the bachelor's and the master's programmes. The management felt that this finding could be explained by the progressively increasing level in both programmes, which makes the distinction between the learning outcomes and the transition from the bachelor's to the master's level less profound. The committee understands the reason for a progressively increasing level, but draws attention to the significance of clear communication about the differences in intended learning outcomes between the bachelor's and master's programme.

1.2. Considerations

The committee compared the final qualifications prepared by the programmes against the domain-specific reference framework and examined their profile and orientation. It concludes that the framework provides an adequate reflection of the domain and the general knowledge and skills that graduates should have acquired. It understands that the framework has a rather

broad design, as each institute has different interpretations and accents concerning Human Movement Sciences. The committee is convinced that the content, theoretical richness and breadth make it worthwhile to invest in Human Movement Sciences as a separate domain and profile.

The committee is satisfied with the profile and orientation of the programmes. It values the multidisciplinary character of the programmes and the accent on individualization of study programmes. It concludes that an acceptable amount of attention is paid to the professional practice along with the explicit focus on scientific orientation. Even so, the committee shares the concern of HMS on the perceived lack of professional orientation to the bachelor's programme and trusts that the discussions during the site visit have contributed to find efficient methods to make it clearer to students the potential career applications for which the programme prepares them.

According to the committee, the final qualifications of the bachelor's and master's programme reflect the domain-specific reference framework and the specified profiles. In addition, they clearly describe the different expectations of students at the bachelor and the master level. Even so, the committee feels that the articulation of the differences in intended learning outcomes between the bachelor's and master's degree programmes could be improved. Overall, the programmes meet the criteria set for their curricula by the professional field and the speciality.

1.3. Conclusion

Bachelor's programme in Human Movement Sciences: the committee assesses Standard 1 as **satisfactory**.

Master's programme in Human Movement Sciences: the committee assesses Standard 1 as **satisfactory**.

Standard 2: Teaching-learning environment

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

Explanation:

The contents and structure of the curriculum enable the students admitted to achieve the intended learning outcomes. The quality of the staff and of the programme-specific services and facilities is essential to that end. Curriculum, staff, services and facilities constitute a coherent teaching-learning environment for the students.

2.1. Findings

In this standard the design and the coherence of the curricula of the bachelor's and master's programme in Human Movement Sciences are examined (2.1.1). In addition, the committee looked at the extent to which the final qualifications are translated within the curricula (2.1.2) and the amount of attention paid to scientific training and the professional practice (2.1.3). Finally, the following topics were considered: the didactic concept and the facilities (2.1.4), intake, study load and outcomes (2.1.5), teaching personnel (2.1.6) and programme-oriented internal quality assurance, which includes descriptions of the measures for improvement implemented as a result of the previous programme assessment (2.1.7).

2.1.1. Contents and structure of the curricula

The committee studied the curricula of the bachelor's and master's programme, looking for coherence and a logical structure. The curricula of both programmes are included in Appendix 4.

Curriculum of the bachelor's programme in Human Movement Sciences

The bachelor's programme is divided into a fixed programme of 150 EC and an elective minor of 30 EC in the third year (see Appendix 4). The programme consists of three years of six periods each. According to the critical reflection the first year provides an overview of all relevant subjects in Human Movement Sciences, such as exercise physiology, movement coordination, biomechanics, anatomy and psychology as well as basic research skills such as mathematics, digital signal processing and academic writing. In the second year, the focus shifts to developing knowledge and skills in the field of research methodology, the structure and operation of the nervous system, muscle physiology, coordination of complex movements, training, pathology and movement analysis. The first part of the third year is reserved for a minor in Human Movement Sciences or a minor of choice in another domain. In principle, a student is free to choose any minor at an academic level. Four minors are offered in Human Movement Sciences: *Sport, Health, Movement Systems* and *Psychomotor Therapy*. In the final semester of the bachelor's programme students work on their *Bachelor Research Project* and *Thesis*. The research project integrates all previously acquired knowledge and research skills and aims at students independently performing a research experiment and writing a report.

Starting in the 2014-2015 academic year, the bachelor's programme will be revised as part of the university-wide streamlining of the bachelor's programmes. The main programme revisions are:

- Each bachelor course comprises a multiple of 6 EC and is offered within one period of 4 or 8 weeks (except for internships);
- A bachelor's programme consists of a major (120 EC), an academic core (30 EC) and a minor in the third year (30 EC). 30 EC of the major can be spent on courses organized by Human Movement Sciences or on courses related to the domain. The academic core

consists of methodological courses and courses oriented towards the philosophical basis of science;

- Each course must include interim examinations (in any form);
- Students are only allowed to take a resit if the grade on the first examination was a minimum of 4.0 (on a scale of 1 to 10).

For the bachelor's programme in Human Movement Sciences, this will imply a serious revision of the current programme, especially in the first two years. The size and spread of many courses have to be reconsidered, five courses are to be designated as optional, and agreements have to be made on what external courses will be accepted as domain-related ones.

Curriculum of the master's programme in Human Movement Sciences

The critical reflection states that the master's programme in Human Movement Sciences comprises 60 EC in one year and is divided into six periods (see Appendix 4). Compared to the last programme assessment in 2007, the master's programme now offers two main tracks, instead of five: *Sport* and *Health*. According to the critical reflection this reduction in the number of master tracks has brought about an increase in efficiency and a stronger focus on the labour market for these two societal fields. Moreover, the two tracks are closely related to the emphasis within MOVE Research Institute Amsterdam, in which all research of the faculty is embedded.

The master's programme starts with two courses on the basic biophysical and behavioural concepts of human movement sciences as well as with a basic course belonging to the chosen track (either *Sport* or *Health*). Subsequently, there are specific courses belonging to the different tracks and their specializations (like sport psychology, physiology or biomechanics) in the second and third period. From the fourth period the master's programme is filled with several electives and the *Research Internship*. The *Research Internship* is meant to work both as an integrator (all abilities and knowledge collected previously come together in an integrated manner) and as a means of further specialization (opportunity to develop research qualities on the subject of choice).

Contents and coherence

Based on the information provided in the critical reflection and on the reading table during the site visit, the committee found that the curricula of both the bachelor's and master's programme are well organized and sophisticated. It also ascertained that the design and coherence of both programmes are sufficiently explicit. The main strength of the curricula is their breadth and flexibility, which are reflected in the minors, tracks and a broad arsenal of electives. The committee is pleased with the room for individualized study programmes provided by the minors in the third bachelor year and the two master specializations. It fits the intended profile as discussed earlier under standard 1. This permissive, liberal approach is definitely a strength of both programmes. Nevertheless, the committee remarks that this comes at a cost: the programmes struggle with efficiency issues, and economies of scale are limited because of the substantial variety in study programmes. The interviews with management during the site visit revealed that it is well aware of the consequences of this deliberate policy. The committee is convinced the management has made a conscious choice to cover a large part of the domain of Human Movement Sciences and accepts the broad variety in study programmes and associated costs. Despite the challenges this substantial freedom of choice brings, the committee admires the conviction with which the management stands up for its decision. In addition, the interviewed students and alumni valued the extensive space for electives and specialization in the bachelor's and master's programme.

This all adds to the committee's confidence in the management's ability to properly revise the bachelor's programme according to the university guidelines as of 2013-2014.

2.1.2. Learning outcomes

The committee examined whether and how the final qualifications formulated by the two programmes have been translated into the curriculum. It paid specific attention to the extent of internationalization.

The committee verified the translation of the final qualifications of the bachelor's programme by studying the cohesion between the intended learning outcomes and the curriculum. Furthermore, it examined the study guides of several bachelor courses available during the site visit. It ascertained that the bachelor curriculum sufficiently meets the intended learning outcomes.

The committee also studied the correspondence between the learning outcomes and the curriculum of the master's programme, including the two specializations. Each of the individual specializations demonstrates proper internal consistency, according to the committee. In addition, the committee gained insight into the way the learning outcomes are translated within the courses by studying a description of the learning objectives, specification of contents, assignments and literature. It found that all learning outcomes are cross-matched to courses within the different tracks of the master's programme.

In the interviews with lecturers and the Educational Committees during the site visit, it became clear to the committee that the engaged Educational Committees fulfill an important role in securing the connection between the contents and structuring of courses and the final qualifications of each programme. The committee values this check as part of the continuous process of designing the curricula. In contrast, it found room for improvement about how the correspondence between intended learning outcomes and the curricula is communicated to students and teachers. During the interviews with these delegations, the committee found that they were not fully aware of the alignment of learning outcomes and the design of the curricula. More explicit communication on this could improve their awareness. For instance, by publishing the mapping matrix that has been composed for the institutional quality assurance assessment or by approaching lecturers pro-actively on this point.

Internationalization

The committee studied the degree to which internationalization is part of the curricula. In brief, it finds that the level of internationalization in both Amsterdam programmes sufficiently meets the international standard in the Human Movement Sciences domain.

According to the committee, Human Movement Sciences is not really a magnet for foreign students. The direct professional benefit of studying abroad is considered limited; international experience is not an obvious professional route in this field of activity. In line with this, based on the information provided during the interviews with the management team, the committee noted that the number of foreign students and research projects conducted abroad is rather limited in Amsterdam. Nevertheless, it acknowledges the added value of international experience in terms of cultural development. Moreover, it may be valuable in obtaining a better international perspective on the professional and academic context of Human Movement Science. For staff members participating in research projects, internationalization is relevant as well. Taking these benefits into account, the committee is pleased to see that while in the bachelor's programme only study materials and the honours programme for excellent students are provided in English, the master's programme is taught

entirely in English. It also values the information meeting for students about going abroad, as mentioned by the students interviewed during the site visit. Based on the interview with lecturers, the committee feels the extent of internationalization among the staff is acceptable; staff members participate in international networks and have enough contact with colleagues abroad. It is also positive about the active Erasmus contracts. During the site visit the committee found out that internationalization does not have a high priority for the management. It recommends that the management team pay more attention to the aspects of cultural development and the international perspective on the domain. The international activities that are already in place could be strengthened, and the students could be stimulated more to take that step and gain experience abroad, as this can contribute greatly to their development.

2.1.3. Academic and professional orientation

The committee feels that the development of scientific research skills is effectively addressed within the bachelor's and master's programme. It noted that the bachelor's programme has a strong scientific orientation, since about one-third of it is focused on training academic skills. The committee thinks that the future plans on revising the bachelor curriculum (see 2.1.1) will add to translating the academic profile into the curriculum. The bachelor and master courses stimulate students to think and act academically, and enough of the curricula is focused on methodology. As stated under standard 1, the committee sees the explicit scientific orientation of both programmes as a great strength.

While the intended learning outcomes of the bachelor's and master's programme explicitly include the orientation towards an academic professional career, the translation of this learning objective into the curricula is a point of concern to the committee. The bachelor's programme provides some opportunities for professional orientation via the minor during the first semester (provides students with an initial competence for the labour market) and via the *Bachelor Research Project* and the bachelor thesis (there is a possibility to conduct the research externally). According to the critical reflection more extensive attention is paid to a professional orientation in the master's programme. Master students are offered the opportunity to choose a programme more oriented towards the professional field via an optional course in entrepreneurship, a *Practical Internship* and the *Teaching in Higher Education* programme, which can partly be followed within the master's programme. However, during the site visit the committee found that the attention paid to the professional practice in both curricula is valued poorly by students and alumni. Both mentioned the limited information on career perspectives and little vocational guidance during their study. Additionally, the interviewed bachelor students showed limited insight into the occupational opportunities after graduation, and the alumni mentioned that some of the tools used during courses were not as up to date as those used in contemporary professional practice. These notions match the remarks in the critical reflection stating that students and alumni feel uncertain and unclear about their concrete skills and operative knowledge and their future market value.

The professional orientation was also a point of concern during the previous programme assessment in 2007. The critical reflection states that, in response, the management took several measures to improve it in the bachelor curriculum. In addition to the Labour Market Orientation Day that has been organized once or twice each year since 1995-1996, information about career perspectives is available on the institute's website. Moreover, in 2011 the management conducted a survey among alumni to obtain up-to-date information on career developments after graduation. The results are being used to inform bachelor students about their career perspectives after graduation. Additionally, the critical reflection describes that from the academic year 2012-2013 onwards, meetings with an expert group of

representatives of the labour market will be organized on a regular basis. And in the 2010-2011 academic year, the bachelor course *Academic Exploration* was introduced, in which students are stimulated to reflect on their study choice in view of possible career paths. Finally, the study advisor and career counsellors offer individual career counselling if requested by students. However, according to the critical reflection, these actions have not yet led to a higher score for professional orientation and job perspectives in the annual evaluation of the first-year bachelor programme. The students and alumni interviewed by the committee confirmed this feeling of a lack of attention for the professional practice in the bachelor's programme. According to the interviewed master students and alumni, the master's programme provides more opportunities for vocational exposure and guidance. They valued the *Practical Internship* as well as the *Teaching in Higher Education* programme. The committee noted that the optional *Entrepreneurship* course in the fifth period also meets with the need for professional orientation in the master's programme.

The committee feels that the management has taken the remarks of the previous assessment committee seriously into consideration. It praises the number of measures undertaken by the management to improve the professional orientation. Nevertheless, it shares the students' and alumni's view that there is a need and room for further improvement of the orientation towards the professional practice, especially in the bachelor's programme. It states that the programmes' profiling on scientific research should not stop the institute from expanding the professional orientation in the curricula. It sees the orientation on professional practice as complementary to the scientific orientation. The fact that about half of all Human Movement Sciences graduates are working outside the academic domain confirms the committee's belief that the orientation towards professional practice is a relevant topic that deserves the full attention of management and staff. Therefore, the committee advises both programmes to stress the orientation towards professional practice. It suggests augmenting the possibilities for labour market and professional orientation that are already in place. It encourages both programmes to increase the amount of attention paid to professional orientation within the curricula (for instance, the focus on labour market orientation during the *Academic Exploration* course). This avoids the situation in which the professional orientation mainly depends on the individual students' own initiative and study choices. By incorporating the orientation towards professional practice into the curricula, students will be more pro-actively confronted with career perspectives and professional practice during their study. Both programmes might consider the following suggestions made by the interviewed students, alumni and the committee:

- Increased attention on presentation skills during bachelor courses;
- Work with up-to-date tools that are actually used in the professional context;
- Invite guest lecturers from the professional working field to talk about their professional practice;
- Incorporate company visits into specific courses, thereby making use of the contacts of lecturers and alumni with the working field;
- Invite alumni to share their experiences on the labour market after graduation. Alumni may also make the added value of studying Human Movement Sciences more concrete;
- Explicitly name the link with professional practice when discussing cases;
- Explicitly state the value of scientific research results in professional practice.

In summary, the committee considers that the scientific orientation in the bachelor's and master's programme is good. The orientation towards the professional practice in both programmes needs to be improved but meets the standard. Based on the measures taken in

response to the remarks of the previous programme assessment, the committee has confidence in a resolute approach by the management to further improve the professional orientation.

2.1.4. Didactic concept and facilities

The committee examined the didactic vision underlying the teaching in the bachelor's and master's programme. It also explored whether the available facilities are adequate.

The critical reflection states that in both programmes, students are taught to work independently and to take responsibility for their own learning process as well as acquire knowledge. The educational concept is described as one of self-management, in which students take control of and evaluate their own learning and professional behaviour. Based on the critical reflection and the interviews held with lecturers and students, the committee noted that the degree of self-management increases over time. In the first bachelor year, regulation is rather strict (no electives, mandatory attendance of study groups and practicals, and monitoring via a tutoring system and study advisors), while in the second and third bachelor years and during the master, students become increasingly responsible for their own learning process (choice of minor and master track, topic for research project, practical internship and master thesis). During the interview with students, the committee found that the didactic concept of self-management is highly valued by bachelor and master students as well as alumni. The course information in the critical reflection report and on the reading table during the site visit showed that the format of lectures, working groups and assessments suits the educational concept. The committee was pleased to notice that an active learning attitude is encouraged by placing students in small groups in order to stimulate them to be actively engaged in studying the teaching materials. Moreover, the interviewed teaching staff members were fully aware of the educational concept; they clearly have a common understanding of how to teach their students. The lecturers made it clear that they demonstrate this working style in practice.

The committee feels that the didactic vision is not a very elaborated concept, but the concept of self-management is well translated into the curricula and valued by students. It compliments the staff on their way of translating the educational concept into practice.

Facilities

Based on the documentation received, the interviews conducted with various groups and the guided tour that was part of the site visit in Amsterdam, the committee ascertained that the facilities are barely adequate. Given the substantial and increasing number of students, the committee was a bit underwhelmed by the limited availability of a teaching laboratory. The critical reflection also stated that the study facilities are suboptimal, with a shortage of self-study and teaching facilities. However, the committee understands the way of prioritizing the allocation of the scarce resources by the management and notes that the programmes are making good use of the limited facilities. Additionally, during the site visit alumni confirmed that they missed training with up-to-date tools that are used in professional practice (for instance, learning to use Dartfish for sport analysis). The committee feels that although more traditional equipment may be useful in showing students the basic principles of human movements, the educational programmes would truly benefit from more up-to-date facilities and tools. The management may also consider ways to facilitate access to the facilities to allow students opportunity to develop and practice their laboratory skills away from formal taught sessions.

2.1.5. Intake, study load and completion rates

The quantitative data for intake, feasibility and outcomes are listed in Appendix 5.

Intake

The committee notes that enough students enter both programmes with sufficient knowledge and skills to complete it successfully. The annual intake of bachelor students has shown a substantial increase over the last ten years; it has nearly doubled in that time. In the 2011-2012 academic year, 206 students enrolled in the bachelor's programme. As stated before, the number of foreign bachelor students is rather low (see 2.1.2). A notable feature of the intake in the master's programme is the considerable number of students coming from a background in higher vocational education (HBO).

During the site visit, the committee spoke with the management team about the intake in the bachelor's and master's programme. Both programmes have quite a high intake, which is very positive. One of the issues noted in the critical reflection and discussed with the management is the large diversity in educational backgrounds of students entering the master's programme. The committee agrees with the management that heterogeneous groups of students create stimulating discussions and provide interesting learning experiences. On the other hand, in some cases, this diversity can decrease the level of the programme. According to the management and the interviewed students and lecturers, some non-HMS bachelor students struggle, there is some unwanted repetition of the bachelor's programme, and lecturers have difficulty arranging the contents and level of courses to accommodate students with different backgrounds. With these consequences in mind, the committee values the following intentions and measures taken by the management:

- The planned clarification of the level of knowledge expected of students without a bachelor's degree in Human Movement Sciences;
- The intention to develop higher and more specific entry requirements, accompanied by more possibilities to prevent students from entering the master's programme when they do not meet the requirements. An obligatory entry test is already used for international master students coming from a background in higher vocational education;
- The intention to start a master's programme Physiotherapy Research in 2013-2014 to facilitate a large group of physiotherapy students and to reduce diversity in the interests of master students;
- The premaster programme in place for students with a non-HMS background, which reduces the diversity in level of students;
- The split between the regular and research master from 2009-2010 on, which has reduced the diversity in level and interest of students.

Study load and study support

The committee examined the feasibility of the bachelor's and master's programme by exploring the study load and study support available to students. It confirmed that both the bachelor's and master's programme are feasible, based on the information provided and the interviews it conducted with students, lecturers and alumni.

The committee feels that the number of contact hours is sufficient (see Appendix 5). In line with the educational concept of increasing self-management, the average number of contact hours per week decreases over time during the bachelor's programme. Moreover, according to the critical reflection the total meets the university guideline of a minimum average of 14 contact hours per week in the first bachelor year. The committee finds the number of contact hours in the master's programme rather high, especially when compared to the bachelor's

programme. It argues for a continuation of the gradually decreasing number of contact hours through the bachelor's and master's programme, since master students are expected to act even more independently.

Additionally, the committee found that study support is adequate for both bachelor and master students. As mentioned before, the committee compliments the programmes on the study support for talented and motivated students (see 1.1.2). The interviewed students valued the easy access to study advisors and staff members. They felt that there are sufficient possibilities to receive study support when needed. Nevertheless, the students and alumni noted the substantial difference in the intensity of study support in bachelor year one as compared to bachelor years two and three. They favoured more proactive study support in the second and third years and suggested engaging senior students or even alumni to realize it. During the site visit the management explained that more funds will be made available for measures, aimed to increase student satisfaction on educational matters. This may lead to an intensification of study advisors in 2013 and 2014. The committee suggests using the additional capacity to spread proactive study support more evenly over the three bachelor years. It also recommends using it to collect and analyse administrative data (like figures on participation and reasons for drop-out and study delay) to identify students at high risk. This facilitates early signalling and a more structural way of taking specifically directed actions that may promote study progress for these students. The committee expects that these measures will contribute to the programme's feasibility and at the same time promote study progress and achievement rates.

Completion rates

Despite the acceptable study load and adequate study support, the critical reflection states that the achievement rate of the bachelor curriculum is too low, according to both VU University and national standards (see Appendix 5). Additionally, the current drop-out rate is about 40%. According to the critical reflection, the high drop-out rate and low achievement rate are partially caused by the choice of Human Movement Sciences as a temporary alternative study for Medicine. About 20% of the first-year students chose Human Movement Sciences as their second option. To prevent drop-outs and delays, a number of measures have been implemented, and more are being planned by the management. They include extending study support in the first bachelor year via the course *Academic Exploration*, the introduction of the binding recommendation on continuation of studies (BSA; students should obtain at least 39 out of 60 EC in the first bachelor year to be allowed to continue with their studies), the resit rule (which implies that students are only allowed to resit an exam when the first exam was graded with 4.0 or higher), more interim exams in courses, and more intensive information sessions with future students in order to avoid a wrong choice of study. As part of this latter measure in 2013, a pilot will be started in which potential students will be tested on their level of knowledge of mathematics, physics and human biology.

The committee finds that the drop-out and achievement rates are of considerable concern. The completion rates are low and have not shown any progression over the last few years. Still, the committee feels that appropriate solutions are being implemented to prevent further deterioration. Based on the critical reflection and the interviews with the management and the Educational Committees, the committee got the impression that improvement of completion rates has been given a high priority. It advises strengthening further the measures already taken, extending proactive study support in the bachelor curriculum (e.g. earlier timepoints for intervention, using Blackboard to approach students at high risk of study delay and drop-out, or mandatory attendance in practical sessions), and exploring additional possibilities of up-front selection. It favours the idea of implementing a selection interview for potential

bachelor students, as already realised in the master's programme. It thinks that these solutions will contribute to preventing the intake of unmotivated students and the improvement of completion rates in the near future. Improved presentation of the value and professional orientation of Human Movement Science may help encourage students to persevere with their study.

2.1.6. Teaching personnel

Quantity of teaching personnel

Based on the critical reflection and the interviews with management, staff members and the Educational Committees, the assessment committee noticed that the number of FTEs involved in teaching has decreased since 2006. Allocation reductions at the university level forced the management to cut back on the participation of student assistants and to hold back on replacing retired staff members. As a consequence, the staff-student ratio has seen a strong decline over the last six years (see Appendix 5). Even taking non-attendance during courses into account, the staff-student ratio still comes to 1:33 in 2011. This ratio clearly exceeds the maximum ratio of 1:20 advised by VU University Amsterdam.

Initially, these figures were of substantial concern to the committee. However, during the site visit these concerns were alleviated. The committee found that the management considered the number of teaching personnel restricted, but enough to achieve their educational goals (although they admitted that there is no room for absence due to illness). The teaching staff confirmed that, despite the capacity constraints, they are able to adequately fulfill their teaching tasks (although in some individual cases the high working load has had repercussions on their private life). Moreover, interviewed students stated that teachers and supervisors were easily accessible and approachable. While partially reassured, the committee strongly recommends lowering the current staff-student ratio quickly. It advises investing in additional teaching staff and looking for opportunities to realize economies of scale in teaching tasks in the short term. Additionally, it suggests using a more refined way of quantifying the actual teaching load to prevent individual teachers getting overloaded without warning.

Quality of teaching personnel

Based on the critical reflection and the interviews with management, staff members and the Educational Committees, the committee ascertained that the personnel policy reflects the breadth and depth of Human Movement Sciences. The staff is characterized by methodological and theoretical pluralism combined with several different specializations.

The committee states that the teaching staff is well educated and committed, despite the fact that the work load has risen in the past few years. The interviewed management, staff and students reassured the committee that the teaching goals are met. Although not laid down in official policy, the following methods are utilized to assure the educational quality of the teaching staff:

- The educational director and direct supervisor (professor) speak to new teaching staff members about the educational concept and possibilities for didactic training;
- New teachers are obliged to follow a basic didactic training (BKO). All teachers are encouraged to follow courses to improve their educational skills (for instance, a course on teaching in English);
- Teaching manuals are available per course;

- The annual performance reviews focus on professionalisation, coaching and contact with the working field. The student evaluation results form an important input for this.

In the interview with the committee during the site visit, the students expressed their highly positive opinion of the lecturers. They feel that the staff members provide good lessons. In addition, the students are satisfied with the informal atmosphere in the programme and the ease of approaching the staff. Students also indicated that lessons are taught by the professors themselves. Moreover, the committee greatly values the fact that senior scientists are consciously employed for tutoring during the first bachelor year.

In the interviews with staff members, management and the Educational Committees, the committee noted that because of the increased working load, research activities have been put under pressure lately. It sees this as a potential challenge to the institute's principle of combining and integrating teaching with research. In response, the management explained that the baseline is a 50-50% distribution of teaching and research tasks. Lecturers who have been awarded financial grants for research projects are allowed to devote more time to research instead of teaching, but a minimum limit of 20% teaching is applied. Moreover, the management stressed that sufficient attention is paid to the quality of teaching and integrating research and education. For example, the lecturers with mostly teaching tasks regularly involve colleagues to provide a link with contemporary research projects in their courses. When meeting the committee, staff suggested that the normal load was more oriented towards teaching, possibly reinforcing the consequences of the increased staff student ratio. The committee was reassured that deviating from the 50-50% distribution is not a compromise on quality. It has confidence in the management's continuous monitoring of the balance between teaching and research activities.

Based on the critical reflection and the interviews conducted during the site visit, the committee ascertained that the personnel are inspired and have the correct expertise and level. It considers it a positive and significant aspect that the professors are closely involved in the teaching of both the bachelor's (including first-year bachelor courses) and master's programmes. It explicitly compliments both programmes on their dedicated and high-quality staff.

2.1.7. Quality assurance

The committee explored the extent to which students and lecturers are involved and contribute to the evaluation and improvement of the quality of the teaching. In line with university guidelines, the internal quality care process is based on the PDCA cycle (plan, do, check, act). According to the critical reflection, a university-wide internal audit on the internal quality care process was performed in 2012. The results showed that the faculty's quality care process is well organized and well above the university average. As part of the PDCA cycle, all courses are evaluated at the end. The outcomes of the evaluations are made available to the management, Educational Committees and staff members. In addition, annual evaluations are performed. Evaluation results are discussed with the lecturers involved by the Educational Committee and when necessary also with the Educational Director. Students receive feedback on the evaluation results and measures taken from the lecturers involved for the specific course and from Blackboard.

The committee is pleased with the design and functioning of the quality assurance system. During the site visit both lecturers and students stated that they are involved and their opinions about the quality of the teaching are heard. The committee also had the opportunity during the site visit to talk to members of the Educational Committees of both the bachelor's

and the master's programmes. It noted that these groups of students and lecturers take their roles seriously, are very involved in the quality of the education and actively influence the optimization of the quality. It remarked that a more formalized mode of working might enhance the function of the Educational Committees.

Improvements in response to the previous programme assessment

The critical reflection describes which changes have been made based on the recommendations of the previous assessment committee. The current committee confirmed that a large number of the recommendations have been implemented, although the results were not always gratifying. It ascertained that actions were taken to improve labour market orientation, the management worked on solving the problems resulting from the diversity in backgrounds in the bachelor's and master's programme, and the master's programme has been redesigned to incorporate two tracks instead of five. It finds that the programmes are paying sufficient attention to the measures for improvement suggested during the previous programme assessment. It has confidence that both programmes will continue to work towards the remaining issues. It ascertained that the institute properly monitors and controls the quality of the education provided.

2.2. Considerations

The committee concludes that the programme, the personnel and the programme-specific facilities enable bachelor and master students to acquire the final qualifications.

The committee values the educational concept of self-regulation and the way it is translated into teaching practice by the lecturers. It finds the dedicated focus on scientific training in the programmes praiseworthy. It notes that the attention paid to the professional practice is still limited despite the measures already taken. It advises improving this situation, especially in the bachelor's programme, which echoes a wish expressed by the students and alumni.

The committee confirmed that the curricula of the bachelor's and master's programme in Human Movement Sciences have a clear, sophisticated design. It is pleased with the room for individualized study programmes in both curricula. This is supported by the bachelor minors, master tracks and a broad range of electives.

In contrast to the substantial intake rates, the completion rates of the bachelor's and master's programme are low. The committee expects that a clearer communication to students about the expected level of knowledge and skills before they start with the programmes and more proactive study support during the bachelor's programme will contribute to improving this situation. Because of the diversity in educational backgrounds and high drop-out rates, the committee also advises further exploration of the possibilities to extend the procedure of interviewing, testing and assessing students prior to entering the master's programme to the bachelor's programme.

The committee concludes that the teaching personnel are the greatest asset of the programmes. The lecturers are inspired, dedicated and have the correct expertise and level. The committee remarks that the work pressure is considerably high. It urges the programmes to invest in reducing the staff-student ratio as soon as possible. It appreciates that the management is aware of the professionalization of lecturers and compliments it on the aspect that lecturers are actively involved in the quality of the teaching. The study facilities are barely adequate and the committee stresses that the bachelor's and master's programme would truly benefit from more up-to-date facilities and tools.

The committee confirmed that the programmes are well aware of the quality of the teaching environment, in which lecturers and students are closely involved and well supervised.

2.3. Conclusion

Bachelor's programme in Human Movement Sciences: the committee assesses Standard 2 as **satisfactory**.

Master's programme in Human Movement Sciences: the committee assesses Standard 2 as **satisfactory**.

Standard 3: Assessment and achieved learning outcomes

The programme has an adequate assessment system in place and demonstrates that the intended learning outcomes are achieved.

Explanation:

The level achieved is demonstrated by interim and final tests, final projects and the performance of graduates in actual practice or in post-graduate programmes. The tests and assessments are valid, reliable and transparent to the students.

3.1. Findings

In this standard the findings regarding the assessment method in the bachelor's and master's programme are given (3.1.1), and then the question is addressed of whether students actually realize the targeted final qualifications (3.1.2).

3.1.1. The system of assessment and evaluation

The committee explored whether the bachelor's and master's programme have an adequate system of assessment. It examined the assessment policy, the procedures involved with assessment, the forms of assessment and the functioning of the Examination Committee. It confirmed that there is an adequate system in place. The Examination Committee plays an active role by randomly evaluating final papers and learning goals, and making methods and forms of assessment explicit and aligned. In general, the programmes employ a variety of forms of assessment.

Assessment policy

The critical reflection describes how the faculty board determines the policy on examination. Formal regulations are outlined in the Academic and Examination Regulations. The policy is further elaborated in several different ways. For example, the Educational Director provides documents in which the relationship between learning outcomes, learning objectives, teaching methods and forms of examination are described. They are used by the Examination Committee and the Educational Committees to ensure the quality of the programmes. In addition, based on the information available on the reading table, the committee noted that the teaching manual includes information on making assessments. According to the interviewed lecturers, peer review (face-to-face principle) is exercised when making an assessment. The topic of assessment has a place on the agenda of the semi-annual information meetings with teachers of the faculty, and lecturers of a department are asked to discuss the assessments in intercollegial peer supervision. Written examinations make use of model answers. When evaluating the theses, two examiners complete an evaluation form.

The committee studied the existing assessment policy and confirmed that it is comprehensive and adequately addresses all relevant aspects. The policy covers all steps in the assessment process, from the preparation to the organization of assessments.

Examination Committee

As stated in the critical reflection, the Examination Committee is responsible for determining whether students have met the final qualifications of the programmes. This includes determining whether students meet the degree requirements of the Academic and Examination Regulations with respect to knowledge, understanding and learning skills. The Examination Committee is also responsible for ensuring the quality, organization and coordination of examinations. The faculty board guarantees the independent and professional functioning of the Examination Committee.

During the site visit the committee spoke to representatives of the Examination Committee about its role in the implementation of the assessment policy and monitoring the quality of assessment. The Examination Committee has taken certain measures to guarantee the quality. For instance, outliers in the results of examination evaluations are discussed with lecturers and students. A checklist with general guidelines for examinations has been provided to all teaching staff. Lecturers utilize evaluation forms and model answers as much as possible. And recently, the Examination Committee checked whether there is a suitable mix of assessment forms in the bachelor's programme that fits the final qualifications. The Examination Committee receives most of its information from evaluations. From 2012 it is planning to organize meetings with delegations of students to discuss the quality of the examinations. The committee liked the initiative of the Examination Committee to attend the oral presentation of the final papers of graduating bachelor students in order to get an impression of the achieved learning outcomes.

Overall, the committee found that the attitude of the representatives of the Examination Committee was very involved and professional. It is impressed by the commitment of the Examination Committee to ensuring the quality of examinations. It remarked that certain procedures of quality assurance regarding assessment are quite informal. Somewhat more formal procedures (for instance, checking consistency in grading between courses) and more structured inspection of the quality of assessments could help the Examination Committee to perform its tasks more efficiently, thereby saving time that can be used for more proactive and in-depth analyses of specific elements of assessments. As an example, the committee feels that a more regular and structured check of bachelor and master theses by the Examination Committee is desirable.

Process concerning assessment

The critical reflection states that the formal elements of the procedure concerning assessment are described in the Academic and Examination Regulations. From the documentation available on the reading table and the interviews with lecturers and students conducted during the site visit, the committee noted that the examination dates are published in the course handbooks and on the timetable. The forms of assessment, assessment procedure, dates and evaluation criteria are described in the course guidebook (also available on Blackboard) and are usually explained during the first lecture of a course. As mentioned in section 2.1.1, the assessment procedures will be revised in the 2014-2015 academic year. Students will only be allowed to take a resit if the grade on the first examination was a minimum of 4.0. Furthermore, as of 2013-2014, each bachelor course must have interim examinations (in any form). At this moment lecturers determine how many tests to impose per course. The number depends partly on the learning goals and the design of the course. During the interviews with students, it was evident that they are well aware of the criteria and the procedures concerning assessment. The committee established that students have no complaints concerning the examination procedures. Moreover, it found that they have sufficient possibilities to submit complaints if necessary, namely via the specific lecturer or supervisor, student representatives of the Educational Committees, the faculty's ombudsperson and the Examination Committee. There is a standard form on the faculty's website which students may use to contact the Examination Committee about individual problems or complaints. The Examination Committee meets once a month, and the meeting dates are published online. The maximum response time is two weeks. An appeal against a decision of the Examination Committee can be submitted within a time limit of six weeks.

Forms of assessment

Based on the critical reflection and the documentation about assessment methods available during the site visit, the committee confirmed that the bachelor's and master's programme use various forms of examination: open-ended questions, multiple-choice questions, essay examinations, practical reports, research internship reports and presentations. The form of assessment depends mainly on the teaching method used (lectures, practicals, internships) and the final qualifications of the course. From the interviews with lecturers and management, the committee learned that group size also partly determines the form of examination. Teachers mentioned that with the increasing number of students, it is often not possible to correct exams with open-ended questions within 15 working days, the mandatory deadline. The committee indeed noticed a considerable quantity of multiple-choice questions in the first year of the bachelor's programme, but understands the reasoning behind this. It found that both lecturers and the Examination Committee were keen on safeguarding the balance of open-ended and multiple-choice questions in exams. It stresses the importance of remaining vigilant about shifting to more efficient forms of assessment (like multiple-choice questions) because of increasing student numbers.

The weighting attached to the different forms of assessment is specified in the course guidebook. The different assessments are spread as evenly as possible throughout each course. In practice, this generally means that students work for several weeks on a paper, assignment or presentation. The last week of the block is reserved for a concluding assessment, like a written examination.

During the site visit and in preparation for it, the committee looked at the different assessments and specifically the manner in which group products are evaluated. It confirmed that the assessment seems adequate in terms of level and content. In addition, it feels that the assessments are sufficiently varied, well considered and attuned. The lecturers and the workgroup supervisors discuss the assignments and their evaluation within the department. During the site visit students indicated that they were satisfied with the variety of assessment forms and how the programme dealt with assessment. The alumni added that the number of presentations in the bachelor's programme could be augmented, since presentation skills are highly valued in their professional careers.

Thesis process

The critical reflection states that the bachelor's research project (18 EC) is the final part of the bachelor's programme. It integrates all previously acquired knowledge and skills. The project aims at conducting a research experiment and writing a report (thesis). It includes setting up and executing the experiment, collecting and processing data, and searching and reading the relevant literature. The bachelor's research project is performed in pairs and supervised by one of the staff members. The project ends with a presentation at a mini-symposium to which staff members, friends and relatives are invited. The bachelor's research project and report are assessed by the thesis supervisor and a second supervisor, both using a standard assessment form. The research project is evaluated on a number of elements, such as understanding of the subject, use of the literature, independence and creativity. The presentation at the symposium determines 20% of the final grade. The supervisor provides oral feedback to the students about the grading.

All master students are required to complete their study with a research internship (24 to 30 EC). According to the critical reflection the research internship is meant to encourage integration and as a means for further specialization. Students are free to choose the research topic, but these topics are usually in line with the chosen master track. All internships must be

carried out under the supervision of an academic staff member of the faculty. This supervisor has the final responsibility for the research internship. The thesis procedure and criteria for assessment are specified in a study guide and are available via Blackboard. The research internship is evaluated on a number of elements, such as research and writing skills, independence and creativity. The supervisor provides oral feedback to the students about the grading.

The committee is positive about the bachelor's and master's thesis procedures. It is enthusiastic about the presentation at the mini-symposium, since it reflects professional practice and involves the social groups around students. The inclusion of more presentations earlier in the programme would help prepare students for this element.

3.1.2. Achievement of the learning outcomes

The committee assessed the achieved learning outcomes by inspecting a selection of theses, reports of research projects and reports of research internships. It studied 16 theses and reports of research projects for the bachelor's programme before the site visit, as well as 15 reports of research internships for the master's programme, together with the associated assessment forms (see Appendix 7). Consideration in selecting the final papers was given to the grading (low, average and high grade) and the specializations.

The committee members read the bachelor theses and papers on the research projects and the reports on the master research internships. They assessed the presentation of the problem, review of the literature, methods and justification, conclusion and discussion, structure, legibility and verification. In general, the committee agreed with the grades awarded by the supervisors. The grading was fair and reflected the differences in the dissertations. The committee was pleased to observe that the final papers were well written and of an acceptable level. In general, the theses and research reports were based on relevant and interesting questions which were clearly formulated, contained an adequate conceptual framework, and demonstrated correct application of the research methods.

The committee concludes that the overall quality of the bachelor and master theses is satisfactory, and graduates of both the bachelor's and master's programme achieve the required level. In accordance with the final qualifications, the committee found a clear distinction in the level of the achieved learning outcomes between the bachelor reports and the master reports.

Alumni

The committee reviewed the job positions of graduates of the bachelor's and master's programme in Human Movement Sciences and whether they were adequately prepared for them. The critical reflection referred to a five-yearly survey among alumni about their positions in the field that was last performed by the faculty in 2011. The survey results revealed that half of the graduates found employment within a month after graduation. The majority found a job that was specifically related to their studies, whereas 20% indicated that they held a job for which an academic qualification would not have been necessary. The survey results also showed that about half of the graduates found employment with a governmental or non-profit organization.

In addition, the committee spoke with alumni during the site visit. They highly valued the scientific orientation of both programmes. The interviewed alumni concurred that the programme stimulated their analytical and critical capacities, enhanced problem-solving and logical reasoning (which was reflected in the survey results as well). Although they felt that

more attention could be paid to tutoring during their bachelor study and preparation for the professional practice during the bachelor's and master's programme, they indicated that they were satisfied with their ultimate career.

3.2. Considerations

The committee concluded that the programme has an adequate system of assessment and can demonstrate that the target final qualifications are realized. The faculty's assessment policy has been satisfactorily translated in both programmes. The committee is impressed with the commitment of the Examination Committee, and ascertained that it exercises sufficient control of the quality of assessments. It suggests implementing some more formal and structured inspection methods to examine the quality of assessments for efficiency reasons. It is pleased with the actual process concerning assessments and likes the fact that students appear well aware of the assessment criteria and procedures. The assessments as a whole are sufficiently varied according to the committee, and they adequately reflect the contents of the bachelor's and master's programme and the students' level. Considering the increasing student numbers, the committee stresses the importance of remaining vigilant to the balance between open-ended and multiple-choice questions in the bachelor assessments. It ascertained that the thesis procedures of both programmes are adequate.

The committee concluded that the bachelor and master students acquire an adequate final level by the end of their programme. This was confirmed by the bachelor's theses and reports on the bachelor research projects, as well as the reports on the master research internships evaluated by the committee. The committee found that the target final qualifications of both programmes were realized, and there is an adequate difference in the level of achieved learning outcomes between the bachelor and the master reports. Moreover, it concluded that graduates of both programmes are adequately prepared for their job positions.

3.3. Conclusion

Bachelor's programme in Human Movement Sciences: the committee assesses Standard 3 as **satisfactory**.

Master's programme in Human Movement Sciences: the committee assesses Standard 3 as **satisfactory**.

APPENDICES

Appendix 1: Curricula Vitae of the members of the assessment committee

Prof. dr. N. Fowler is Head of the Department of Exercise and Sport Science at MMU where he teaches applied biomechanics at both undergraduate and post graduate level. He has been a Fellow of the UK Higher Education Academy since its creation in 2007. He is a member of the British Association of Sport and Exercise Sciences (BASES) and has held both research and support accreditation continuously since 1995. He has been the Chair of both the Biomechanics Section and Education and Training Committee of BASES. Neil led the development of the Undergraduate Endorsement scheme for the Association, the committee of which he still Chairs. In providing applied biomechanics support to athletes Neil has worked with the British Athletics and Target Shooting teams at National, European, World, Olympic and Paralympic competitions. With over 40 published papers, his main areas for research have been low back pain, the biomechanics of jumping and the energetics of wheelchair propulsion.

Prof. dr. R.G.J. Meulenbroek is director of the master's programme Cognitive Neuroscience at Radboud University Nijmegen. Prof. Ruud Meulenbroek is experimental psychologist specialized in the field of neurocognitive processes underlying human motor control. He received his PhD in Social Sciences at the Radboud University (RU) Nijmegen, The Netherlands in 1989. Since then he is senior researcher at the Donders Institute for Brain, Cognition and Behaviour at RU, as of 2007 as full professor. Together with Prof. David Rosenbaum (Pennsylvania State University, PA, USA) and Prof. Jon Vaughan (Hamilton College, New York, USA) he has developed a seminal theory of posture-based motion planning. He has coordinated and participated in national as well as European large-scale, interdisciplinary research projects on human task performance and is programme director of the two-year researchmaster programme in Cognitive Neuroscience of the RU.

Prof. dr. P. Wylleman is professor Sportpsychology at the Vrije Universiteit Brussel. Paul Wylleman obtained his PhD in Psychology at the Vrije Universiteit Brussel on the role of interpersonal relationships in talent development and conducted a post-doctoral study at Michigan State University. He is appointed as professor at the Vrije Universiteit Brussel teaching Sport Psychology, Human Resources and Psychological aspects of leisure time at the faculty of Physical Education and Physiotherapy and the faculty of Psychology and Educational Sciences. He is head of the department Topsport and Study at the Vrije Universiteit Brussel. He is also acting President of the European Federation of Sport Psychology (FEPSAC).

Prof. M. Rodgers PT, PhD is George R. Hepburn Dynasplint Professor and Chair, Department of Physical Therapy and Rehabilitation Science, University of Maryland School of Medicine. She is also Senior Advisor for the National Institute for Biomedical Imaging and Bioengineering (NIBIB) at the National Institutes of Health (NIH). Dr. Rodgers earned her Physical Therapy and Masters degrees at the University of North Carolina, Chapel Hill, and her PhD in Physical Education/Biomechanics from the Pennsylvania State University. As Director of the Pilot & Exploratory Studies Core, Dr. Rodgers is heavily involved in the mentorship, educational and dissemination efforts of the University of Maryland Claude D. Pepper Older Americans Independence Center. In her NIBIB/NIH advisory role, Dr. Rodgers facilitates support of technology development for individuals with disability, rehabilitation, and healthy independent living.

R. Plas, BSc is a second year student of the research master Fundamental and Clinical Human Movement Sciences at the VU University Amsterdam. In August 2011, he finished the bachelor's programme in Human Movement Sciences at the VU University Amsterdam. His current research is focussed mainly on the muscle characteristics of marmoset (a small new world monkey) muscles. The research will be performed partly at the VU University in Amsterdam and partly at the MMU in Manchester. In his last bachelor year and first research master year he acted as student assessor in the program committee which is a student representative advising their faculty board on educational matters.

E. Middeljans BSc is student of the master's programme in Human Movement Sciences at the University of Groningen at the Human Movement Sciences faculty. In September 2011, he started the master's programme in Groningen at the rehabilitation department. His interest is mainly in the field of motor control. During his study he was actively involved in the student association, which included a function as president of the board. Last academic year he acted as chairman of ProMove, which is a student council advising their faculty board on all student-related (mostly educational) matters.

Appendix 2: Domain-specific framework of reference

Agreed upon in March 2012 by:

Faculty of Human Movement Sciences - VU University Amsterdam

Center for Human Movement Sciences - UMCG / University of Groningen

Domain-specific frame of reference

The domain-specific frame of reference is intended to cover the Bachelor's and Master's degree programmes of both the Faculty of Human Movement Sciences of VU University Amsterdam and the Center for Human Movement Sciences of the University Medical Center Groningen.

This DSFR represents the current situation and will continue to develop as a product of cooperation between HMS Amsterdam and HMS Groningen. As far as possible, we took the international position in the field of Human Movement Sciences into account.

Definition of the field

Human Movement Sciences (HMS) is concerned with the systematic and scientific in depth study of human movement and the application of its body of knowledge to movement-related scientific and societal issues. The emphasis is on both typical and atypical movement and conditions of movement.

The field of HMS has a strong multi-disciplinary character, with its roots in practical disciplines such as physical education and physiotherapy, and scientific disciplines such as psychology, pedagogy, physiology, (functional) anatomy, biomechanics and the neurosciences. Research questions focus on understanding how the brain regulates human movement, how movements are learned, how structure influences function, and how processes such as recovery, learning and aging are influenced by environmental and physical factors.

Human movement has many facets that evoke questions about molecular and cellular structures, musculoskeletal functioning, the relation between perception and movement, the development of the motor system, motor learning, movement coordination, ergonomics, rehabilitation and tools and equipment to support movement. As such, HMS is strongly involved in health care, sports and ageing and is therefore intrinsically connected with important societal issues.

Orientations

HMS considers human movement as the outcome of a permanent interaction between motor, cognitive and perceptual processes in a meaningful context. The focus is on understanding and optimizing motor behaviour. Research and education are oriented on three interrelated fields: 1. Sports, learning and performance, 2. Rehabilitation and functional recovery and 3. Motor function, cognition and healthy ageing. In this respect the Groningen and Amsterdam programmes are highly comparable, but approaches are slightly different. In the Groningen bachelor's programme the focus is more on acquiring methodological and statistical skills, whereas in Amsterdam the focus is more on acquiring practical experimental proficiency. The Master's programmes also show some differentiation: the Groningen two-year master's programme intends to prepare students for both research and other academic careers. In Amsterdam, both study lines are -to some extent-separated: the two-year research master intends to prepare students for a research career, whereas the one-year master, in principle, prepares for other HMS related functions.

The content of the Groningen and Amsterdam programmes also have slightly different orientations. In general, HMS Groningen is more oriented towards the neurosciences while in HMS Amsterdam biomechanics and exercise physiology are more prominent. More specifically, within the sports domain, in HMS Amsterdam the emphasis is on individual sports and individual athlete capacities, whereas in HMS Groningen, research focuses traditionally more on team sport and group dynamics. Another distinction can be seen in the area of ageing, where HMS Groningen concentrates on what is coined “healthy ageing” while HMS Amsterdam, as illustrated with its MOVE-AGE programme, focuses more on age-related afflictions. As mentioned before, it should be kept in mind, that these differences are gradual!

HMS Amsterdam and HMS Groningen are the only two self-standing HMS programmes in the Netherlands. In Maastricht and Nijmegen, HMS is a main subject in Biomedical Sciences education.

Educational level

Both HMS Amsterdam and HMS Groningen emphasize the scientific nature of their programmes. Students become knowledgeable and highly trained academics and researchers. At the bachelor's level they acquire and apply existing knowledge and learn to perform scientific research under close supervision. At the master's level they learn to function as full academics, independently gathering new knowledge through scientific study and communicating this knowledge on a professional level.

International position

The international position of the Dutch HMS programmes is productive, which we conclude on the basis of the following arguments:

- The HMS programmes have served as an example for new HMS programmes elsewhere in Europe. More specifically, HMS Trondheim (Norway) and HMS Marseille (France) and Physical Education and Sport Sciences in Budapest (Hungary) have adopted comparable curricula;
- Both HMS Groningen and HMS Amsterdam have an extensive international network, which is intensively used within their educational contexts. Up to 15% of the master students finish their graduation research projects abroad and both programmes comprise courses taught by foreign professors. Furthermore, both HMS Groningen and HMS Amsterdam regularly receive foreign students and staff, mobility and exchange are increasing;
- HMS alumni traditionally do quite well in the international setting¹. Every year about 2 to 3 alumni accept a position as PhD student abroad and some of our alumni have accepted top positions in HMS related faculties all over the world, such as Germany (Köln, Leipzig), France (Marseille), Norway (Trondheim, Oslo), Switzerland (Zürich), GB (Manchester, Birmingham, Exeter, Glasgow), USA (Boston), Australia (Perth, Melbourne).

Nevertheless, HMS Groningen and HMS Amsterdam still aim to strengthen their international positions in the field of Human Movement Sciences.

¹ Numbers are from HMS Amsterdam. For Groningen, which is a relatively young study programme, numbers are not yet available.

Domain Specific Learning Outcomes

For the students the Bachelor's degree programme yields:

- knowledge of and insight into the field of Human Movement Sciences;
- acquaintance with an integrative approach to the understanding of human movement;
- skills necessary to do well in an academic environment. These skills include scientific reading and writing, mathematics, computer and study skills, supervised scientific research and reporting on the required level (from scientific to lay audiences);
- preparation for a future career, either in science (as in a follow-up master's programme), or as a professional.

For the students, the Master's degree programme yields:

- specialized knowledge of, skills related to and insight into a selected field of Human Movement Sciences;
- the ability to apply an integrative approach to the study of human movement;
- skills necessary to do well within a specific field in either a purely academic environment, or an academic professional environment. These skills include scientific reading and writing, performing scientific research and reporting on the required level (from scientific to lay audiences);
- preparation for a future career, either in science (as in a follow-up PhD position) or as an academic professional.

Appendix 3: Intended learning outcomes

Final qualifications in terms of Dublin descriptors for the bachelor's and master's programme Human Movement Sciences

The Dublin descriptors

The Dublin descriptors for Bachelor's and master's programme were first proposed in March 2002 (see: www.jointquality.org) and have since been slightly modified. A working definition of the 'Dublin descriptors' for the Bachelor's and Master's phases is set out below:

Qualifications that signify completion of the first cycle are awarded to students who:

- Have demonstrated knowledge and understanding in a field of study that builds upon and supersedes their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;
- Can apply their knowledge and understanding in a manner that indicates a professional² approach to their work or vocation, and have competences³ typically demonstrated through devising and sustaining arguments and solving problems within their field of study;
- Have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;
- Can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences;
- Have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.

Qualifications that signify completion of the second cycle are awarded to students who:

- Have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research⁴ context;
- Can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;

² The word '**professional**' is used in its broadest sense, relating to those attributes relevant to undertaking work or a vocation and that involves the application of some aspects of advanced learning. It is not used with regard to those specific requirements relating to regulated professions. The latter may be identified with the profile / specification.

³ The word '**competence**' is used in the descriptors in its broadest sense, allowing for gradation of abilities or skills.

⁴ The word '**research**' is used to cover a wide variety of activities, with the context often related to a field of study; the term is used here to represent a careful study or investigation based on a systematic understanding and critical awareness of knowledge. The word is used in an inclusive way to accommodate the range of activities that support original and innovative work in the whole range of academic, professional and technological fields, including the humanities, and traditional, performing, and other creative arts. It is not used in any limited or restricted sense, or relating solely to a traditional 'scientific method'.

- Have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;
- Can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;
- Have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

Competences

Although many definitions of competences exist, we prefer to use the term “Action competence”, which “includes all the cognitive, motivational and social prerequisites for successful learning and application and has been used to analyse the conditions for success in meeting task goals ([Winterton et al. \(2005\)](#)”. Aspects of competence include:

- Domain-general and domain-specific knowledge;
- General problem-solving competence;
- Critical thinking skills;
- Social competences.

For the Bachelor’s Programme HMS (Amsterdam) the above translates to the aforementioned final qualifications (see Domain Specific Learning outcomes):

- knowledge of, and insight into the field of Human Movement Sciences;
- acquaintance with an integrative approach to the understanding of human movement;
- skills necessary to do well in an academic environment related to Human Movement Sciences. These skills include scientific reading and writing, mathematics, computer- and study skills and reporting on the required level (from scientific to lay audiences);
- be able to pursue a future career either in science (as in a follow-up MSc study), or as a professional.

The following tables give an overview of the final qualifications in relation to the five main Dublin descriptors for the Bachelor and the Master programmes.

Dublin-descriptor Knowledge and understanding BSc Programme	
[Is] supported by advanced text books [with] some aspects informed by knowledge at the forefront of their field of study	<ol style="list-style-type: none"> 1. Has knowledge of the current theories and insight in the present research questions in the field of movement sciences 2. Can collect scientific information efficiently and is able to correctly interpret knowledge concerning a HMS related subjects. 3. Can develop a research plan on the basis of an existing research question and/or hypothesis. 4. Has overview of research methods and - techniques relevant for the field
Dublin-descriptor: Applying knowledge and understanding BSc Programme:	
[through] devising and sustaining arguments	<ol style="list-style-type: none"> 5. Has mastered experimental and analysis methods to conduct an investigation, in particular in the field of movement sciences 6. Is able to efficiently and in consistency collect scientific information. 7. Can apply HMS related knowledge on societal questions. 8. Can lay links between data coming from several fields of research. 9. Can think interdisciplinary, has insight in disciplines that are important for movement sciences.
Dublin-descriptor: Making judgements BSc Programme:	
[involves] gathering and interpreting relevant data taking into account relevant societal, scientific and ethical aspects	<ol style="list-style-type: none"> 10. Can assess results of research critically and on the basis of existing analysis methods. 11. Has insight in the scientific and social relevance of the current research in the field of movement sciences.
Dublin-descriptor: Communication BSc Programme	
[of] information, ideas, problems and solutions to specialist and non-specialist audiences, as well as with their peers, the larger scholarly community and with society in general	<ol style="list-style-type: none"> 12. Can transmit Scientific knowledge orally, using modern presentation techniques and coordinated on the public concerned. 13. Can present results of research in writing at the level of a professional journal and uses references correctly. 14. Is able to communicate at level with experts from several fields .
Dublin-descriptor: Learning skills BSc Programme	
have developed those skills needed to study further with a high level of autonomy	<ol style="list-style-type: none"> 15. Is able to reflect on obtained knowledge and skills. 16. Is capable of evaluating its own functioning and own learning aims, both by self reflection and in conversation with others. 17. Is familiar with the general national and international journals in the field of movement sciences 18. Can acquire information on the basis of scientific - and professional literature and analyse this information. 19. Can cooperate in interdisciplinary composed teams. 20. Has the skill to learn new knowledge and skills independently in a future situation within the framework of life long learning.

Dublin-descriptor Knowledge and understanding MSc Programme:	
Provides a basis or opportunity for originality in developing or applying ideas often in a research* context	<ol style="list-style-type: none"> 1. Has knowledge of the current theories and insight in the present research questions in the fields of Sport, Exercise and Health. 2. Can collect scientific information efficiently and is able to correctly interpret knowledge concerning specific topics in the fields of Sport, Exercise and Health. 3. Can develop a research plan in which design, execution and analysis of the study are properly described. 4. Has knowledge of advanced research methods and techniques relevant for the field
Dublin-descriptor: Applying knowledge and understanding MSc Programme:	
[through] problem solving abilities [applied] in new or unfamiliar environments within broader (or multidisciplinary) contexts	<ol style="list-style-type: none"> 5. Has mastered experimental and analysis methods to plan, set-up and execute applied research, particularly in the fields of sport, exercise and health. 6. Can apply HMS related knowledge on societal questions, particularly regarding sport, exercise and health. 7. Can lay links between data coming from several fields of research. 8. Can think interdisciplinary, has insight in relevant disciplines
Dublin-descriptor: Making judgements MSc Programme:	
[demonstrates] the ability to integrate knowledge and handle complexity, formulate judgements with incomplete data	<ol style="list-style-type: none"> 9. Can critically evaluate methods and results of research. 10. Has insight in the scientific and social relevance of the current research in the fields of sport, exercise and health.
Dublin-descriptor: Communication MSc Programme:	
[of] their conclusions and the underpinning knowledge and rationale (restricted scope) to specialist and non-specialist audiences (monologue) ..	<ol style="list-style-type: none"> 11. Can transmit scientific knowledge orally, using modern presentation techniques and coordinated on the public concerned. 12. Can present results of research in writing at the level of a professional journal and uses references correctly. 13. Is able to contribute content wise to scientific discussions concerning the planning of research and interpreting the results. 14. Is able to communicate at level with experts from several fields hereby contributing to linking these fields. 15. Can cooperate in interdisciplinary composed teams.
Dublin-descriptor: Learning skills MSc Programme	
study in a manner that may be largely self-directed or autonomous	<ol style="list-style-type: none"> 16. Is able to reflect on obtained knowledge and skills. 17. Is capable of evaluating its own functioning and setting own learning aims, both by self reflection and in conversation with others. 18. Has gained practical experience in doing research during a scientific internship and knows own strengths and weaknesses. 19. Can independently acquire information on the basis of scientific and professional literature and analyse and critically evaluate this information. 20. Has the skill to learn new knowledge and skills independently in a future situation within the framework of life long learning.

Appendix 4: Overview of the curricula

Bachelor's programme 2012-2013

Year 1

Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Academic Exploration (3 EC)			Biomechanics (6 EC)		Introduction to Functional Anatomy (6 EC)
Mathematics (9 EC)		Digital Signal Processing (6 EC)	Philosophy: Science, Ethics and Sport (3 EC)	Scientific Writing (3 EC)	
Introduction to Exercise Physiology (6 EC)	Introduction to Movement Coordination (6 EC)		Psychology (6 EC)	Introduction to Movement and Health (6 EC)	

Year 2

Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Neurosciences (6 EC)	Muscle Physiology (6 EC)	Philosophy of Human Movement Sciences (6 EC)	Pathology of Movement (6 EC)	Statistics (6 EC)	Clinical Movement Analysis (6 EC)
Control and Learning of Complex Movements (6 EC)	Mechanical Analysis of Human Movement (6 EC)		Measurement of Physical Quantities (6 EC)	Exercise Training and Performance (3 EC)	
			Questionnaires and motor skills tests (3 EC)		

Year 3

Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Minor of choice (30 EC)				Anatomy of the Motor System (6 EC)	
			Bachelor Research Project (18 EC) Thesis (6 EC)		

Minor Movement Systems

Period 1	Period 2	Period 3
Linear System Dynamics (3 EC)	Simulation Models of Neuromuscular Systems (3 EC)	Biophysics of Locomotion (6 EC)
Simulation Models of Skeletal Systems (3 EC)	Control of the Musculoskeletal System (3 EC)	
<i>Free choice</i> <i>Default course: Cognitive Neuroscience (Faculty of Earth and Life Sciences) (6 EC)</i>	Applied Exercise Physiology (6 EC)	

Minor Sport

Period 1	Period 2	Period 3
Sport Psychology (6 EC)	Philosophy of Sports (6 EC)	Talent and Talent Development (6 EC)
Measurements in Sports (6 EC)	Applied Exercise Physiology (6 EC)	
	Legal Aspects of Sports (6 EC)	

Minor Health

Period 1	Period 2	Period 3
Rehabilitation (6 EC)	Research Methods/Epidemiology (6 EC)	Neuropsychology and Rehabilitation Psychology (6 EC)
Movement and Health at Work (6 EC)	Applied Exercise Physiology (6 EC)	

Minor Psychomotor Therapy

Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Psychopathology and Clinical Psychology (6 EC)	Theory of PMT (6 EC)	Clinical Skills for Movement and Body Oriented Therapy (6 EC)	Traineeship Psychomotor Therapy (12 EC)		
Bachelor Research Project (18 EC) Thesis (6 EC)					

Minor Sport, Exercise and Health (for external students)

Period 1	Period 2	Period 3
Introduction to Exercise Physiology (6 EC)	Introduction to Movement Coordination (6 EC)	Neuropsychology and Rehabilitation Psychology (6 EC) <i>(orientation Health)</i> OR Talent and Talent Development (6 EC) <i>(orientation Sport)</i>
Rehabilitation (6 EC) <i>(orientation Health)</i> OR Sport Psychology (6 EC) <i>(orientation Sport)</i>	Applied Exercise Physiology (6 EC)	

Master's programme 2012-2013

Master's programme Human Movement Sciences: Sport, Exercise & Health

Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
General programme	General programme Health / Sport	Optional Practical Internship (6 EC), Extension Internship (6 EC), Short Literature Review (6 EC)			
History and Theory of Movement Sciences (3 EC)	<i>Two of the courses below and 6 EC optional</i>	Clinical Exercise Physiology (3 EC)	Neurorehabilitation in the Context of Movement Science (3 EC)	Fatigue, Aging and Disuse (3 EC)	Sport Biomechanics (3 EC)
Behavioral Concepts in HMS (3 EC)	Coordination Dynamics (3 EC)	Applied sport psychology (3)	3D-Kinematics (3 EC)	Entrepreneurship in HMS (6 EC) (External course designed for Human Movement Sciences)	Intermuscular Load Sharing (3 EC)
Biophysical Concepts in HMS (3 EC)	Exercise and Health (3 EC)	Rehabilitation: Restoration of Mobility (3)	Statistics for Experimental Research (3 EC)		
Health & Society (3 EC)	Normal and Abnormal Motor Development (3 EC)	Talent Identification and development (3)	Electromyography (3 EC)	Research Internship (24 EC)	
or: Sport & Society (3 EC)	<i>Two of the courses below and 6 EC optional</i>		Perception for Action (3 EC)		
	Perceptual-Motor Learning (3 EC)				
	Energy Flow in Exercise and Sport (3 EC)				
	Maximal Neuromuscular Performance (3 EC)				
	Psychological Factors in Sport (3 EC)				
“docentenopleiding” (in Dutch) (24 EC, = 15 EC extra + 9 as optional course)					

Appendix 5: Quantitative data regarding the programmes

The data in the tables 1-8 are based on reports provided by the department of education statistics of VU University Amsterdam.

Inflow, dropout, transfer and achievement rates and study duration

Bachelor's programme

Inflow rates

Table 1: Yearly inflow of the bachelor's programme HMS

Year (cohort)	Student numbers – previous education					Student numbers – male / female		
	VWO	HBO prop	HBO	Foreign	Other	Male	Female	Total
2002	107	3	2	0	5	47	70	117
2003	112	7	3	0	2	64	60	124
2004	145	5	4	3	0	75	82	157
2005	136	3	2	1	2	65	79	144
2006	132	1	0	2	4	70	69	139
2007	154	5	6	3	3	86	85	171
2008	200	4	0	1	6	116	95	211
2009	207	6	3	2	10	127	101	228
2010	200	7	1	0	9	110	107	217
2011	193	5	3	3	2	111	95	206

Dropout rates

Table 2: Yearly dropout of the bachelor's programme (VWO inflow)

Year (cohort)	Number first year students in programme	dropout after 1st year (cohort-cumulative)		dropout after 2nd year (cohort-cumulative)		dropout after 3rd year (cohort-cumulative)	
		Number	Percentage	Number	Percentage	Number	Percentage
2002	107	19	18%	36	34%	41	38%
2003	112	27	24%	41	37%	43	38%
2004	145	34	23%	47	32%	48	33%
2005	136	26	19%	44	32%	48	35%
2006	132	38	29%	51	39%	58	44%
2007	154	46	30%	57	37%	60	39%
2008	200	64	32%	80	40%	84	42%
2009	207	69	33%	86	42%		
2010	200	76	38%				

Transfer and achievement rates and study duration

Table 3: Number of bachelor's degrees, bachelor to master transfer and study duration

			Transfer to Master HMS at VU University		Transfer to Master outside VU University		Total Transfer to Master	
Graduation year	Number of Degrees	Study duration (months)	Number	% of graduates	Number	% of graduates	Number	% of graduates
2004	34	41	24	71%	1	3%	25	74%
2005	54	45	46	85%	1	2%	47	87%
2006	72	44	63	88%	1	1%	64	89%
2007	87	49	76	87%	2	2%	78	90%
2008	70	49	60	86%	1	1%	61	87%
2009	83	52	66	80%	5	6%	71	86%
2010	106	51	88	83%	4	4%	92	87%

Table 4: Achievement rates of VWO inflow in the bachelor's programme

First year students in BSc programme		Re-registrations after 1 st year		BSc degree after 3 years	BSc degree after 4 years	BSc degree after 5 years	BSc degree after 6 years	BSc degree after > 6 years
Year (cohort)	Number	Number	Percentage	Percentage (cohort re-registrations)	Percentage (cohort re-registrations)	Percentage (cohort re-registrations)	Percentage (cohort re-registrations)	Percentage (cohort re-registrations)
2002	107	88	82%	28%	50%	59%	64%	66%
2003	112	85	76%	21%	55%	72%	75%	76%
2004	145	111	77%	17%	58%	67%	77%	80%
2005	136	110	81%	11%	40%	60%	70%	
2006	132	94	71%	10%	39%	57%		
2007	154	108	70%	8%	41%			
2008	200	136	68%	18%				
2009	207	138	67%					
2010	200	124	62%					

Master's programme

Inflow rates

Table 5: Yearly inflow of the master's Programme HMS

Year (cohort)	Student numbers - previous education				Student numbers - male/female		
	VU	Other university	HBO	Outside higher education	Male	Female	Total
2004	7	2	29	1	15	24	39
2005	48	16	30	1	27	68	95
2006	66	14	33	4	42	75	117
2007	68	26	32	5	39	92	131
2008	70	20	38	3	49	82	131
2009	74	25	33	8	62	78	140
2010	57	23	44	5	58	71	129

NB: In 2002, the Dutch universities switched from the “doctoraal” programme to the Bachelor-Master structure. Till 2006 students finished their study within the “doctoraal” programme. These students are not included in Table 5, which only shows the inflow of Bachelor students in the Master's programme.

Dropout rates

Table 6: Yearly dropout of the master's Programme HMS

Year (cohort)	Number First year students in programme	Dropout after 1st year (cohort-cumulative)		Dropout after 2nd year (cohort-cumulative)		Dropout after 3rd year (cohort-cumulative)	
		Number	Percentage	Number	Percentage	Number	Percentage
2004	39	8	21%	10	26%	11	28%
2005	95	7	7%	10	11%	11	12%
2006	117	10	9%	12	10%	14	12%
2007	131	7	5%	10	8%	13	10%
2008	131	12	9%	15	11%	22	17%
2009	140	18	13%	41	29%		
2010	129	40	31%				

NB: Table 6 combines the success rates of both the master's and premaster's programme. The success rate of the premaster's programme is much lower than that of the master's programme and therefore Table 6 mistakenly suggests a high dropout of the Master's programme.

Achievement rates and study duration

Table 7: Achievement rates of the Master's programme HMS

	First year students in programme	Degree after 1 year	Degree after 2 years	Degree after 3 years	Degree after 4 years	Degree after > 4 years	Still active in 2011
Year (cohort)	Number	Percentage (cohort - cumulative)	Percentage (cohort - cumulative)	Percentage (cohort - cumulative)	Percentage (cohort - cumulative)	Percentage	Percentage of cohort
2004	39	0%	15%	51%	62%	69%	3%
2005	95	2%	48%	82%	86%	87%	0%
2006	117	15%	50%	74%	82%	85%	1%
2007	131	19%	53%	80%	86%		2%
2008	131	14%	55%	73%			10%
2009	140	14%	52%				19%
2010	129	19%					

Table 8: Number of degrees and average study duration of the Master's programme HMS

Grad. year	Students from VU University		Students from other Dutch University		Students from HBO		Students from outside higher education		Total	
	Number of degrees	Study duration (months)	Number of degrees	Study duration (months)	Number of degrees	Study duration (months)	Number of degrees	Study duration (months)	Number of degrees	Study duration (months)
2006	50	16	9	19	15	30	1	24	75	20
2007	61	16	13	22	27	29	2	32	103	20
2008	57	18	18	22	20	32	3	22	98	22
2009	63	18	19	25	30	30	7	20	119	22
2010	72	18	15	18	26	32	1	12	114	

Average number of contact hours per week in year 2011-2012

The data below are based on calculations from the Faculty of Human Movement Sciences. Contact hours are defined as times when an activity (lecture, practical, working group) was scheduled. Exams are not included in the definition. Research projects, thesis and research internship are not included in the calculations.

Table 9: Contact hours of the bachelor's and master's programme

Academic year	Contact hours / week
Ba-1	14.1
Ba-2	12.0
Ba-3	
Minor Movement system	12.4
Minor Sport	7.1
Minor Health	7.0
Minor Psychomotor Therapy	6.8 ⁵
Ma	
First semester	14.8

Realized teacher-student ratio

The data on which teacher –student ratios are calculated, are based on calculations from the Faculty of Human Movement Sciences.

Table 10: Teacher-student ratios

Academic year	Students per full-time teaching staff member
06/07	31.12
07/08	34.58
08/09	41.11
09/10	44.34
10/11	47.88
11/12	48.02

Personnel

Table 11: Staff, involved in teaching, per January 2012

Name	Initials	Title	M/F	Position	H-index (Scopus)	Major parameters of esteem
Beek	P.J.	Prof. dr.	M	Professor	33	
Dieën, van	J.H.	Prof. dr.	M	Professor	30	Erasmus Mundus Doctorate Program (2010)
Foster Jr.	C.C.	Prof. dr.	M	Professor	32	
Haan, de	A.	Prof. dr.	M	Professor	27	Professor at Manchester Metropolitan University
Savelsbergh	G.J.P.	Prof. dr.	M	Professor	22	Professor at Manchester Metropolitan University, Desmond Tutu Professorship,

⁵ Without the Practical Internship (12EC).

Name	Initials	Title	M/F	Position	H-index (Scopus)	Major parameters of esteem
						Honory Doctorate University Gent
Smeets	J.B.J.	Prof. dr.	M	Professor	28	Vidi (2002), Vici (2008)
Stegeman	D.F.	Prof. dr. ir.	M	Professor	34	
Bos	J.E.	Prof. dr.	M	Prof. with endowed chair	16	
Daanen	H.A.M.	Prof. dr.	M	Prof. with endowed chair	14	
Janssen	T.W.J.	Prof. dr.	M	Prof. with endowed chair	16	
Looze, de	M.P.	Prof. dr.	M	Prof. with endowed chair	22	
Vries, de	J.I.P.	Prof. dr.	F	Prof. with endowed chair	22	
Bakker	F.C.	Dr.	M	Associate professor	15	
Bobbert	M.F.	Dr.	M	Associate professor	33	
Daffertshofer	A.	Dr.	M	Associate professor	24	Vidi (2004)
Kingma	I.	Dr.	M	Associate professor	22	
Oudejans	R.R.D.	Dr.	M	Associate professor	15	
Peper	C.E.	Dr.	F	Associate professor	19	Aspasia grant (2008)
Toussaint	H.M.	Dr.	M	Associate professor	29	Lector at Hogeschool van Amsterdam
Veeger	H.E.J.	Dr.	M	Associate professor	36	Professor at Technical University Delft
Boscher	R.J.	Dr.	M	Assistant professor	11	Lector at Windesheim
Canal Bruland	R.	Dr.	M	Assistant professor	6	
Gerrits	H.L.	Dr.	F	Assistant professor	13	
Hilvoorde, van	I.M.	Dr.	M	Assistant professor	3	Lector at Windesheim
Hoozemans	M.J.M.	Dr.	M	Assistant professor	14	
Houdijk	J.H.P.	Dr.	M	Assistant professor	9	
Jaspers	R.T.	Dr.	M	Assistant professor	10	
Kamp, van der	G.J.	Dr.	M	Assistant professor	19	Visiting assistant Professor at Hong Kong University
Koning, de	J.J.	Dr.	M	Assistant professor	17	Adjunct Professor at University of Wisconsin-La Crosse
Ledebt	A.	Dr.	F	Assistant professor	9	
Maas	H.	Dr.	M	Assistant professor	10	Vidi (2010)
Meijer	O.G.	Dr.	M	Assistant professor	18	Professor at Fujian Medical University
Pijnappels	M.A.G.M	Dr.	F	Assistant professor	10	Veni (2006), NWO Top grant (2010)

Name	Initials	Title	M/F	Position	H-index (Scopus)	Major parameters of esteem
Rossum, van	J.H.A.	Dr.	M	Assistant professor	5	
Ruiter, de	C.J.	Dr.	M	Assistant professor	20	
Soest, van	A.J.	Dr.	M	Assistant professor	18	
Stins	J.F.	Dr.	M	Assistant professor	14	
Emck	C.	Dr.	F	Lecturer	2	
Haan, de	T.	Dr.	M	Lecturer	n.a.	
Harlaar	J.	Dr. ir.	M	Lecturer	18	
Keeken, van	B.L.	Drs.	F	Lecturer	n.a.	
Kwakkel	G.	Prof. dr.	M	Lecturer	34	ERC Advanced Grant
Pijpers	J.R.	Dr.	M	Lecturer	7	
Schutte	H.	Drs.	M	Lecturer	n.a.	
Beers, van	R.J.	Dr.	M	Researcher	13	
Brenner	E.M.	Dr.	M	Researcher	24	Vidi (2002)
Eb, van der	J.W.	Dr.	M	Researcher	2	
Hofmijster	M.J.	Dr.	M	Researcher	2	
Roerdink	M.	Dr.	M	Researcher	9	Veni (2009)

Appendix 6: Programme of the site visit

25 September 2012

13.30	14.30	First meeting with management
14.30	15.30	Students
15.30	15.45	Break
15.45	16.30	Lecturers
16.30	17.00	Educational Committees
17.00	17.45	Guided tour
17.45	18.30	Alumni

26 September 2012

08.30	09.15	Examination committee and student advisor
09.15	09.45	Preparation second meeting with management
09.45	10.45	Second meeting with management
10.45	13.00	Lunch / Internal meeting committee
13.00	13.15	Presentation of initial results
13.15	13.30	Reception

Delegations

First and second meeting with management

Prof. dr. P.J. (Peter) Beek	Dean
Prof. dr. J.B.J. (Jeroen) Smeets	Member Faculty Board
Dr. K.E. (Kirsten) Bijker	Educational Director

Educational Committees

Prof. dr. H.E.J. (DirkJan) Veeger	Chair Bachelor Educational Committee
Drs. H. (Henk) Schutte	Staff member Bachelor Educational Committee
L.A.M. (Leontien) Leijdekkers	Student member Bachelor Educational Committee
M.J. (Mark) Ackermans	Student member Bachelor Educational Committee
Prof. dr. T.W.J. (Thomas) Janssen	Chair Master Educational Committee
Dr. R.R.D. (Raoul) Oudejans	Staff member Master Educational Committee
E.J. (Esther) Scholtens	Student member Master Educational Committee

Lecturers

Dr. M.F. (Maarten) Bobbert	Lecturer 1st, 2nd and 3rd Bachelor year
Dr. I. (Idsart) Kingma	Lecturer 1st, 2nd Bachelor year
Dr. C. (Claudia) Emck	Lecturer 1st and 3rd Bachelor year
Drs. T. (Theo) de Haan	Lecturer 1st and 2nd Bachelor year
Dr. J.J. (Jos) de Koning	Lecturer 1st and 3rd Bachelor year & Master
Prof. dr. J. (Jaap) Harlaar	Lecturer 2nd Bachelor year & Master

Students

T.Z.I. (Thomas) van Zijl	2nd year Bachelor student
J.N. (Jennifer) Kerkman	3rd year Bachelor student
D. (Danielle) Lammers	3rd year Bachelor student
N.M. (Nina) van Mastrigt	3rd year Bachelor student
D. (Djamilla) van der Stap	Master student
M.T.M. (Rinus) van der Schoof	Master student

Examination committee and student advisors

Prof. dr. J.H. (Jaap) van Dieen	Chair Examination Committee
Dr. J.F. (John) Stins	Member Examination Committee
Prof. dr. A. (Andreas) Daffertshofer	Member Examination Committee
Dr. A.J. (Knoek) van Soest	Member Examination Committee
A.M.T. (Annemarie) Baaijens, MSc	Study advisor

Alumni

J. (Joep) Pelsser, MSc	Alumnus
S. (Sarah) Broekmans, MSc	Alumnus
W. (Wikke) van Stam, MSc	Alumnus
P. (Peter) Renden, MSc	Alumnus
W. (Wisse) van der Meijden, MSc	Alumnus
E. (Eef) Bons, MSc	Alumnus

Appendix 7: Theses and documents studied by the committee

- Subject-specific reference framework;
- Learning outcomes of the programmes;
- Overview of the curricula;
- Outline description of the curriculum components;
- Teaching and examination regulations;
- Allocated staff with names, positions, scope of appointment, level and expertise;
- Overview of the contacts maintained with the professional field;
- Reports on consultations with relevant committees/bodies;
- Test questions with corresponding assessment criteria and requirements (answer models) and a representative selection of actual tests administered (such as presentations, work placements, portfolio assessments) and assessments;
- List of the last 25 final projects or the final projects of the past two years (or portfolios/projects demonstrating the exit levels attained by the students);
- Reference books and other learning materials;
- Summary and analysis of recent evaluation results and relevant management information;
- Documentation regarding teacher and student satisfaction.

The committee studied and assessed 16 theses and research projects for the bachelor's programme, as well as 15 research internships for the master's programme before the site visit. The research projects, theses and research internships were selected at random by the project leader and the chair of the committee.

Selected bachelor theses and research projects

1576887	1651617	1707132	1821741	1274341	1863258
1623214	1707094	1722697	1614770	1837907	
1640216	1472682	1707248	1623176	1722751	

Selected master research internships

1708899	1625152	1929496	1675796	2054345
1462504	1684175	1803301	1782738	1934880
1543628	1588907	1795538	1683993	1473093

Appendix 8: Declarations of independence

Q357



DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY

TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: Neil Fowler

HOME ADDRESS: h. ELDORCK ROAD
SANDSACK, CHESTER
CO11 3UR, UK

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

VU Amsterdam

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;



HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, INsofar AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: _____ DATE: _____

SIGNATURE: Neil Fowler

0357



DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY
TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: Ernst Middelkoning

HOME ADDRESS:
Hauwtdwaarsstraat 5
9224 BR Groningen

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:
Human Movement sciences Amsterdam

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:
VU Amsterdam

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;

1



HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, IN SO FAR AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: Groningen DATE: 24-09-2012

SIGNATURE:

2

6357



DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY
TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: Paul Willema

HOME ADDRESS: P. De Laetstraat 4
2550 Koutich
Belgie

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:

Human Movement Sciences

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

VU Amsterdam

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE:



HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, INSOFAR AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE:

DATE:

SIGNATURE:

0357



DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY
TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: R.G.J. Mentenbroek

HOME ADDRESS: Hindeloestraat 24
6531 KK Nijmegen

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:

Bachelor's and Master's Degree Programmes
Human Movement Science

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

VU Amsterdam

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;

1



CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES IN INSTITUTION DURING THE PAST FIVE YEARS;

IS TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL SOMETHING AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, IN SO FAR AS SUCH CONFIDENTIALITY CAN REASONABLY BE EXPECTED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

Nijmegen DATE: 5-9-2012

SIGNATURE: R. Mentenbroek

2

0357



DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY
TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: Mary Rodgers

HOME ADDRESS: 2553 Broadcloth Way
Columbia, MO 21026
USA

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

VU Amsterdam

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;

1



HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, INSOFAR AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: _____ DATE: 9/24/12

SIGNATURE: M. Rodgers

2



DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY

TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: Petra G.A. Helming

HOME ADDRESS: Wijkhuizenstraat 31
7061 A2 Teeboeg (NL)

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN ~~EXPERT~~-SECRETARY:

Human Movement Sciences

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

VU Amsterdam

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE.



HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, INsofar AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: Teeboeg DATE: 21-09-2012

SIGNATURE: PGAHelming