

Stichting Opleidingen Musculoskeletale Therapie

Bachelor of Science in Physiotherapy

Extensive Programme Assessment

Summary

In April 2022 the Bachelor of Science (BSc) programme Physiotherapy of Stichting Opleidingen Musculoskeletale Therapie (SOMT) was visited by an audit panel from Netherlands Quality Agency (NQA). This three-year full-time BSc programme is taught in Dutch at the SOMT location in Amersfoort. The audit panel assesses the quality of the programme as **positive**.

The panel has met a BSc programme with a unique profile and character. It is the only physiotherapy bachelor programme at academic level in the Netherlands. In previous years SOMT has set up the programme in close cooperation with the affiliated master programme of Maastricht University (UM). This set up is realized by a dedicated team of lecturers from SOMT and in cooperation with Dutch and international universities. The final professional level (BIG¹-registration) can only be reached after completion of the master programme of UM. The panel finds the curriculum strong in the build-up of both professional and academic competencies. The combination of physiotherapeutic courses with overarching skills and attitude trajectories works well. Students are strong in their professional skills and their clinical reasoning and problem solving skills. These skills result in a high bachelor level in the graduation phase. The BSc programme is successful in delivering capable graduates with a good basis for further study careers in academic MSc programmes.

The BSc programme is advised to further tune and align the statistics and research methods programme with the master programme of UM, since the current levels in the bachelor exceed the standard level of a BSc.

The small scale setting and the personal attention and guidance is definitely a benefit for the students. The SOMT students have on average a high motivation and seek more in-depth knowledge than regular physiotherapist programmes offer. The students are challenged and really have to prove themselves. The reward is that their career paths are promising, either in their master studies or in positions in which they combine professional practice with research, coordination or management functions/tasks.

Standard 1: Intended Learning Outcomes

The programme **meets** the generic quality requirements for standard 1.

The BSc Physiotherapy programme meets the professional requirements set by the KNGF² and the required bachelor level according to the Dublin descriptors (EQF³ level 6). The intended learning outcomes (ILO's) are described for the continuum with the master programme of the UM (EQF level 7). The panel advises to describe the desired BSc end level in the ILO's more precisely separate from the MSc level. The focus on the academic level is underpinned in the comparison with similar international bachelor programmes. The related work field affirms a good understanding of, and alignment with the ongoing developments in the professional field.

Standard 2-5: Curriculum: Orientation, content, learning environment and intake

The programme **meets** the generic quality requirements for standards 2, 3, 4 and 5.

Students have ample opportunities to develop research and professional skills at academic level in a structured curriculum with abundant content in knowledge and professional skills. The set-up

¹ BIG-register: register of professionals in health care professions; registration is demanded to perform the specified professions in health care in the Netherlands

² KNGF: Koninklijk Nederlands Genootschap voor Fysiotherapie, the professional association for physiotherapists in the Netherlands

³ EQF: European Qualifications Framework

of the programme offers good intertwinement of knowledge on functional anatomy and offers strong training of academic skills. Students are being well prepared for further study at a master's level. The statistics and research methods programme could be better aligned with the affiliated master programme of the UM. Points of attention are the language proficiency in academic writing and the knowledge required for daily practice such as knowledge of registration and insurance systems.

The didactical approach (social constructivism, problem based learning and implementation in the professional field) contributes to an interactive and dynamic environment which challenges the students.

The BSc programme has a clear intake procedure and offers students ample opportunities to follow their own interests and study choices. Information on the programme's specific profile is clear and well available.

Standard 6: Staff

The programme **meets** the generic quality requirements for standard 6.

The curriculum is provided by a diverse, dedicated, highly-qualified and enterprising team of lecturers, from SOMT and affiliated universities in the Netherlands and abroad. Students are positive about the accessibility, engagement and expertise of their lecturers. Keeping a good balance between internal and external staff team is a point of attention. The panel sees challenges in upholding the balance in the staff team with regard to continuity and coherence.

Standard 7-9: Facilities, tutoring and quality assurance

The programme **meets** the generic quality requirements for standards 7-9.

The general educational facilities are a good support for the education. The facilities are very modern and spacious. The digital learning environment offers a good platform for online education. The small-scale nature of the programme is beneficial to the performance of the curriculum and to the tutoring of students in mentor groups. There is a strong commitment to the students.

Although the programme and information provision is well organized, students prefer to receive information on lessons, study design and schedules at an earlier moment.

SOMT likes to keep its quality standards up to par, which is guarded with an adequate quality assurance system, with clear description of tasks, responsibilities and evaluation cycles.

Evaluations are performed regularly, internally and externally. Evaluation results are discussed in the relevant committees. The follow-up on these results can be made more visible with feedback on the improvement actions. This procedure will also suit well with the positive quality culture and the existing focus on quality improvement.

Standard 10: Student Assessment

The programme **meets** the generic quality requirements for standard 10.

The assessment procedures are based on the SOMT central assessment policy. A diverse set of assessment methods is applied, both formative and summative, individual and group assessments. Students are well informed regarding the testing and assessment instruments and criteria. Much attention is given to the importance of good feedback on the progression of students. The above is also shown in the assessment forms. The BSc programme strongly invests in the quality assurance of and upkeep of assessment quality, including the training of lecturers and assessors/examiners. The programme committees involved (exam-, test- and education committee) are properly set in place and fulfil their duties and responsibilities adequately.

Standard 11: Achieved Learning Outcomes

The programme **meets** the generic quality requirements for standard 11.

The graduation BSc-level lives up to the desired final qualifications. All graduation files in the panel's selection received a positive judgement regarding professional and academic skills.

The files show a good balance between the individual and duo performances in the graduation phase. Several research reports show a very high level of statistics and epidemiological methodology, far beyond the expected BSc levels. As indicated before, the panel endorses to discuss the progressive content and the built-up of the statistics and research methods programme with the affiliated master programme of the UM in an open manner.

Alumni are successful in their work careers and MSc/PhD-studies. Several graduates are successful in MSc Medicine programmes. The fact that students can follow flexible study paths besides de affiliated master programme of the UM, offers great extra value. Graduates hold more different positions in the professional field than physiotherapists in regular programmes. Alumni often combine their physiotherapeutic work with research or quality management functions in health care.

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Introduction

This document is the assessment report of the BSc in Physiotherapy offered by SOMT. The assessment was conducted by an audit panel compiled by Netherlands Quality Agency (NQA) commissioned by SOMT. Prior to the assessment process the audit panel has been approved by NVAO.

In this report NQA gives account of its findings, considerations and conclusions. The assessment was undertaken according to the *Assessment Framework for the Higher Education Accreditation System of the Netherlands* of NVAO (September 2018) and the *NQA Guideline 2019 for Extensive Programme Assessment*.

The site visit took place on May 10th 2022.

The audit panel consisted of:

Prof. dr. L.A.G. (Lieven) Danneels (chair/domain expert Rehabilitation Sciences and Physiotherapy)

Dr. J.B. (Bart) Staal (domain expert, lector Key factors in Physiotherapy and Allied Health),

Prof. dr. P.U. (Pieter) Dijkstra (domain expert, Rehabilitation researcher),

Vincent Bindervoet, (student member, master student Physiotherapy)

Ir. M. (Marga) Dekker-Joziase, senior-auditor NQA acted as auditor/secretary of the panel. Due to illness she could not attend the first audit day. On that day the audit panel was guided by drs. P.R. (Patricia) Molegraaf. Both auditors attended the second audit day.

The BSc programme Physiotherapy is the only programme in the audit cluster 'WO B Physiotherapy SOMT'. Therefore tuning with other audit visits and panels was not necessary.

Method of working of the panel and process

For the assessment, the BSc programme Physiotherapy offered a critical reflection report with appendices. For the assessment of the achieved learning outcomes, the panel has studied fifteen sets of graduation products of graduates who recently finished their studies. These graduate products have been selected from the list of alumni of the last two academic years. In this selection, the variety in grading, modes of study and learning paths have been taken into account.

Central in the assessment was the site visit by the panel. To prepare the audit the panel members received NQA's working methods and information about the NVAO-Assessment Framework. Two weeks before the site visit a preparatory meeting was held at the location Amersfoort. During this meeting the panel performed the document study, attended a tour of the facilities, held a preliminary meeting to discuss their tentative findings, and met with the representatives of the programme. Also, the expectations and central topics regarding the site visit were discussed and SOMT informed the panel about the main development issues (start of a second bachelor programme and a desired name change for the Physiotherapy bachelor). The panel also had access to a specific website on which background information was made available by SOMT.

During both the preparatory meeting and the site visit, panel members shared their findings with each other continuously. During the site visit the panel spoke with various stakeholders of the programme, such as students, alumni, lecturers (assessors) and representatives of the work field

and programme committees (see appendix 1). At the end of the site visit the panel incorporated all information obtained in an overall picture and in a tentative substantiated assessment. In the final oral feedback session the panel chairperson presented the conclusive assessment and the major findings of the panel. The site visit finished with a development dialogue between the panel and representatives of the programme.

BSc Physiotherapy staff members and students have had the opportunity to approach the panel (via mail) in confidence to bring to the attention of the panel those matters they deem of importance to the assessment. No reactions had been received.

After the site visit a draft report was formulated, which was presented to the panel. On the basis of the panel's input a second draft was made, which was presented to the programme for a check on factual inaccuracies. The panel members have taken note of the reaction of the programme and if necessary, adapted the report. Subsequently, the report was established as definitive. With all information provided (orally and in writing) the panel has been able to make a deliberate judgement.

The audit panel declares that the assessment of the programme was carried out independently.

Utrecht, September 19, 2022

Panel chairman



Prof. dr. L.A.G. Danneels

Panel secretary



ir. M. Dekker-Joziase

Characteristic features of the BSc Physiotherapy programme

SOMT University of Physiotherapy is a non-funded educational institute that offers Master of Science (MSc, 90 EC) programmes for physiotherapists at EQF⁴ level 7 and a Bachelor of Science (BSc, 180 EC) programme in Physiotherapy at EQF level 6 (Figure 1).

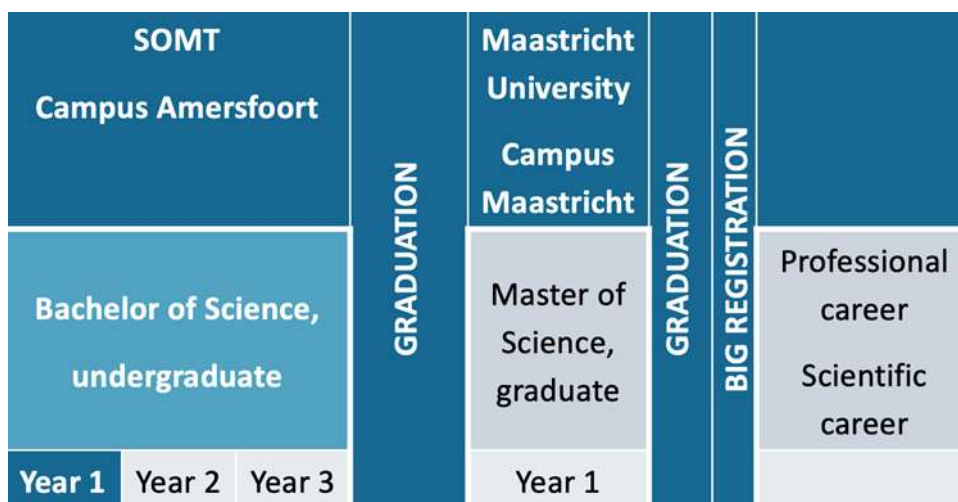


Figure 1

The BSc programme has been set up in close cooperation with Maastricht University. Students who are interested in a career in medicine can follow extra-curricular modules: Immunology, Medical Genetics, Endocrinology, Embryology, Pharmacology and Metabolism. These modules have been developed in close cooperation with Maastricht University, VU Amsterdam, Amsterdam UMC Immunology department and Leiden University Medical Center. This extra-study path has been developed to be equivalent to MSc Medicine programme entry requirements, comparable to the BSc Arts-Klinisch Onderzoeker (AKO physician clinical researcher) and the BSc Medicine, for example the Selective Utrecht Medical Master (SUMMA) at Utrecht University. The BSc programme grants access to the MSc Human Movement Sciences (a study track of Physiotherapy) at Maastricht University.

Although the SOMT BSc and the Maastricht MSc are presented as a continuum, this audit report has to focus on the quality and performance of the BSc Physiotherapy programme of SOMT. The aim of SOMT is to educate clinical experts in a collegial atmosphere with high standard education with an eye for the individual student. These experts can perform and deliver responsible and efficient care in the future. The BSc programme counts approximately 25 incoming students per year. The graduation rate within nominal study time is relatively high (70-80 percent); there are approximately three drop-out students per year.

SOMT has started the development of a second BSc programme on Health Technology and Rehabilitation (195 EC), which will start in September 2023, in collaboration with VU Brussel, Tampere University Finland and Maastricht University. Both BSc programmes will cover the same physiotherapy courses. The aim is a continuum with the MSc in Health Technology and Rehabilitation (to be developed by SOMT, 120 EC).

⁴ EQF: European Qualifications Framework

Basic Data of the BSc Physiotherapy programme

Name of programme as in CROHO (Central Register of Programmes in Higher Education in the Netherlands)	BSc Physiotherapy
ISAT-code	56946
Orientation and level programme	Academic education (wo)
Level programme	Bachelor
For programmes in higher profession-oriented education, the addition which is used for the degree. See the ministerial regulation and the incorporated reference list Stcrt 2013 (Netherlands Government Gazette), 35337 and its elaboration by NVAO. Deviations from it must be validated by the audit panel	Bachelor of Science
Number of study credits	180 EC
Variant (s), including a possible 3-years track for VWO (pre-university education) in case of a programme of higher profession-oriented education	-
Possible new name	BSc in Physiotherapy and Rehabilitation sciences
Graduation courses / 'tracks'	-
Possible new graduation courses / 'tracks'	-
Location(s)	Amersfoort
Teaching language	Dutch

Retrospective of the Previous Accreditation

The BSc Physiotherapy programme received a positive accreditation from NVAO in 2015 (initial accreditation) and successively in 2018. The programme received positive judgements regarding the solid assessment system, the achieved level of student products and the quality of assessment instruments and feedback. Recommendations were given on several topics (*italics* in the following text). The main recommendations were aimed at the following topics:

- *The cooperation with UM.*
The cooperation is still strong with connections at different levels. The steering group (SG) consists of members from both UM and SOMT management. The SG meets at least twice a year and monitors and evaluates the coordination between the bachelor and master programme. One of the Exam Committee members is an UM academic staff member and an UM tutor is involved in three modules. This cooperation is beneficial for the alignment of the SOMT Bachelor and the UM Master programmes.
- *The learning line of the Clinical Rotation.*
Since 2018 the programme has re-scheduled the spinal and extremity modules and tasks within the clinical-skills trajectory, by presenting the more complex case studies in the second year of the educational programme. These changes equip the students better for their Clinical Rotations (in year 1 and 2),
- *The Educational Committee (OC; 'Opleidingscommissie') has been professionalised and is renewed with a more representative composition.*
The OC has matured and now offers recommendations to the Head of Education, who will

respond before every next meeting. The working procedures and regulations are prescribed at institution level.

- *The development of technical skills on all domains of physiotherapy.*
Within the educational programme skills development is restructured. In year two and three, professional skills are developed broadly and include psychomotor skills, clinical reasoning skills, communication skills, neurological rehabilitation skills, cardiovascular rehabilitation skills and pulmonary rehabilitation skills. The combined bachelor and master programmes offer a *broad range of internships* in first, second- and third-line physiotherapy clinics, and institutions.
- *Debate regarding the programme's profile.*
SOMT and the BSc Physiotherapy have continued the debate regarding the programme's profile in close cooperation with the Workfield Committee. Analysis has been made of the alumni work positions.
- *Calibration concerning the assessment of graduation products.*
Calibration of assessment of graduation products is intensified, for the bachelor thesis and for clinical rotations. The Test Committee has developed a calibration procedure, resulting in adaptations in procedure descriptions, score forms and clarification of the independent assessment.

Standards

Standard 1 Intended learning outcomes

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

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 1.

The BSc Physiotherapy programme is unique in its aim to train students at an academic level. The programme provides a good academic and professional basis. The final professional level (BIG⁵-registration) can only be reached after completion of the master programme of the UM. The panel finds that the programme meets the professional requirements set by the KNGF⁶ and that it aims at a high BSc level that matches with the Dublin descriptors (EQF level 6). The Intended Learning Outcomes (ILO's) are described for the continuum with the master programme of the UM (level 7). The panel advises to describe the BSc end level in the ILO's more precisely to set it apart more clearly from the MSc level. The panel is convinced that there is a clear focus on the academic level, that will be further developed in follow up master programmes. This convincement is substantiated by the comparison with the Dublin descriptors and with international partners programmes. The good cooperation with the work field affirms a good understanding of and alignment with the ongoing developments in the professional field.

Substantiation

Professional orientation

The programme is unique in the Netherlands in its aim to provide students with a solid foundation to become competent health professionals capable with the scientific competencies to underpin the physiotherapy profession. Students develop the abilities to improve the physical wellbeing and quality of life of patients. After three years of bachelor study there is no profession finality in terms of BIG-registration. To obtain this the students have to finalise the affiliated Master in Physiotherapy programme of the UM. The aim of the programme fits with the shared mission of SOMT and UM to create a continuum study path and to educate scholarly physiotherapists, equipped with excellent clinical reasoning skills, critically appraised skills, and competencies at an academic level.

The panel finds that the programme is set up in line with the KNGF-professional profile. Implications of the newest version (*KNGF Beroepsprofiel Fysiotherapeut 2021*) are being implemented and have been discussed with the Curriculum Committee, the Steering Committee (combined SOMT-UM) and the Workfield Committee. The final establishment by the Examination Committee is in process.

⁵ BIG-register: register of professionals in health care professions; registration is demanded to perform the specified professions in health care in the Netherlands

⁶ KNGF: Koninklijk Nederlands Genootschap voor Fysiotherapie, the professional association for physiotherapists in the Netherlands

The BSc students must be capable of diagnosing, treating, and monitoring patients as well as providing a prognostic patient specific profile. Students are trained in knowledge from basic rehabilitation, clinical related sciences and clinical practice. Furthermore, students are trained in academic, innovative, leadership and advocacy competencies. The programme equips students to apply scientific evidence in well-defined training situations within the broad context of general health and within the context of physiotherapeutic care.

Next to that SOMT addresses the importance of incorporating technological solutions in prevention, diagnostics, prognostics and intervention. The incorporation of new technological developments will be addressed in the new Bachelor of Physiotherapy and Health Technology which will start in 2023. Examples of these solutions are the use of big data, fit bits, activity monitoring, kinetics and kinematics, artificial intelligence, imaging, robotics, et cetera. Future job possibilities for graduates are situated in the field of: rehabilitation, quality manager (advanced clinical practitioner), 1,5-line care, and in the future: case manager, researcher, implementation and development of rehabilitation programmes and care pathways.

The programme distinguishes itself and its graduates from the more profession oriented BSc physiotherapy programmes at universities of applied sciences in the Netherlands with regard to:

- the jobs/functions that graduates fulfil, often at a higher academic level;
- the success of several students in MSc programmes and the number of graduates that are asked to follow a second MSc or a PhD programme. Two alumni follow a PhD-trajectory in Maastricht and one at VU-Amsterdam.

The panel finds that the programme fits the professional roles and competency areas of the KNGF-profile. The professional profile fits the SOMT mission: to train students to become clinical experts who can perform effective and sustainable health care now and in the future. The panel recognises the specific attention for the academic level and for the reflective and innovative professional roles, which provides students with a sound academic basis and prepares them for further MSc study and career paths.

The panel finds that there is good alignment with the international standards for Physiotherapy educational programmes. The BSc Physiotherapy programme of SOMT has applied to become member of the SROF⁷. Since that was denied by SROF, SOMT has sought international collaboration partners and now participates in the European Network of Physiotherapy in Higher Education (ENPHE). The curricular programme is also aligned with the standards of the European Pain Federation (EFIC). Through lecturer exchange, regular comparisons are made with other universities, for example VU-Brussel, St John's University in York and MUHAS University in Dar es Salaam. SOMT also participates in Erasmus+ programmes. The panel concludes that this offers a sound framework to assure the intended academic level and the intended professional competencies.

From scrutiny of the documents and from the discussions held during the audit visit, the panel concludes that the BSc Physiotherapy degree programme offers students a good preparation for further study in the connecting master programme of the UM. Students also have opportunities to follow their master programme elsewhere, but then they do not become BIG-licensed physiotherapists. The panel is of the opinion that the BSc degree programme aims at a high level

⁷ SROF: Studie Richting Overleg Fysiotherapie. The national platform for collaboration between bachelor-level Physiotherapy programmes at universities of applied sciences

in academic skills and that it distinguishes itself from the MSc level which aims at a more complex and a greater independent level.

Intended Learning Outcomes (ILO's)

The ILO's (see appendix 3) are based on the before mentioned Physiotherapy professional profile of KNGF. To assure the academic level the ILO's are matched and aligned with the educational statement of the World Confederation for Physical Therapy. To ensure a good flow from bachelor to master level the ILO's are aligned with the Master programme Physiotherapy of the UM. In ILO-matrices the coverage of the Dublin descriptors (EQF⁸ level 6) is indicated. All ILO's and sub-ILO's are described in the Education and Examination Regulations (EER). The link with the content of the curricular programme is described in the course manuals.

The panel finds that the ILO's fit the physiotherapy discipline and the international context. SOMT and the UM Master programme work with the same ILO-set and each aims for their specific graduation level (bachelor or master). The panel finds this cooperation positive, and advises to strengthen this further with more precise description of the intended final level for the BSc programme. Because of the continuum with the master programme of the UM and the fact that the ILO's apply to both the BSc and the MSc programme, the bachelor level should be clearly marked. The panel would like to add that the distinction is more clear in the course manuals, in the educational implementation and that was also made clear in the discussion the panel had with lecturers and students. So basically it is there, but it could be better described.

The panel finds that the combined SOMT-UM study path covers the intended learning outcomes as described in the KNGF-professional profile and the National Transcript Physiotherapy, in which the competencies are described in accordance with the BIG-law. The modules and study trajectories correspond with the ILO's and the demands for BIG-registration. The management of SOMT and the UM are active in the tuning and alignment of the SOMT-BSc and the affiliated MSc programme of the UM.

Tuning with the work field

The adjustments of the profile and the ILO's have been discussed with the Steering- and the Workfield Committees and they fit the developments in the professional field. These adjustments are also substantiated in the regular contacts that exist with physiotherapy clinics and by the outcomes of alumni surveys. Comparison with the international partners contribute to gaining insight of the different demands in international work fields. This comparison has resulted for example in more focus on High Intensity Training, Clinical Spirometry, knowledge networks in physiotherapy or the rehabilitation of upper extremity. New assignments have been introduced in the planning of a Neurorehabilitation protocol and in developing a cardiovascular/COPD rehabilitation training protocol (with York University).

The panel is of the opinion that SOMT and the BSc programme invest much time and energy in tuning and alignment with the demands of the work field. Since the programme is unique in the Netherlands at BSc level, this requires extra dedication and effort.

Name change to BSc in Physiotherapy and Rehabilitation Sciences

SOMT opts for a name change for its bachelor physiotherapy programme into: BSc in Physiotherapy and Rehabilitation sciences. The first reason for this name change is that it is in line with international educational university-based physiotherapy programmes like in Belgium

⁸ EQF: European Qualifications Framework

and with the content of the programme and position of the BSc trained physiotherapists in science and care. The name change would fit this.

The second reason lies in the intention of SOMT to start a new BSc programme in Health Technology from September 2022 (195 EC). Later on an affiliated MSc in Health Technology in Rehabilitation programme (120 EC) will be developed.

A third reason is the ambition of SOMT to develop its education and research university further in the broad field of physiotherapy.

The current BSc programme has started to increase the amount of time and attention in the curriculum for rehabilitation. The current curriculum of the SOMT BSc programme already includes ten modules/courses in which the main topic is rehabilitation. The principles of rehabilitation are applied in persons, who are to be operated, who suffered a sports injury, who have a cardiovascular, pulmonary or neurological disease or who have chronic pain. Students are trained, aimed to let patients function as well and as independent as possible. The classification of health and health status is based on the model of Huber and the International Classification of Functioning, Disability and Health (ICF). According to the panel the name change would also make the above more therefore explicit.

The Examination Committee has been asked to approve the course plans. SOMT strives for more Clinical Rotations positions in the work field of neuro-, cardio-, and pulmonary rehabilitation. Until now, this has appeared to be difficult, partly because internship places are already taken by students from other study programmes. The panel supports the initiative to expand the placement possibilities for the Clinical Rotations.

The panel agrees that the name change may mean that the graduates can have an even clearer and also a broader profile in the job market. 'Rehabilitation' implies a broader scope than physiotherapy. 'Sciences' then indicates the clear scientific and academic depth and focus. Of course, it remains important that the content of the programme and the naming of the course units also clearly reflect this name change. Crucial within the concept of 'rehabilitation' is that both content and form pay sufficient attention to interprofessional cooperation.

BIG-registration

The panel concludes that the combined study route SOMT-UM meets the demands regarding the 'wet BIG' for educational programmes as set by the 'Ministerie van VWS'⁹. The study route SOMT-UM with its ILO's covers the demands of the national 'Beroepsprofiel Fysiotherapeut' and the 'Nationaal Transcript Fysiotherapie', with the necessary competencies according to the 'wet BIG'. The programme modules of the study route SOMT-UM meet the intended learning outcomes and the demands of the 'wet BIG'. The management of SOMT and the UM have tuned both programmes (SOMT Bachelor and UM Master) well.

⁹ This conclusion is also based on the report 'Bachelor of Science in Physiotherapy (SOMT University of Physiotherapy) / Master Human Movement Sciences (Universiteit Maastricht), Rapportage in het kader van de Wet BIG, 8 oktober 2018, NQA. Professor Danneels held the position as chair.

Standard 2

Curriculum: Orientation

The curriculum enables the students to master appropriate academic research and professional skills.

Conclusion

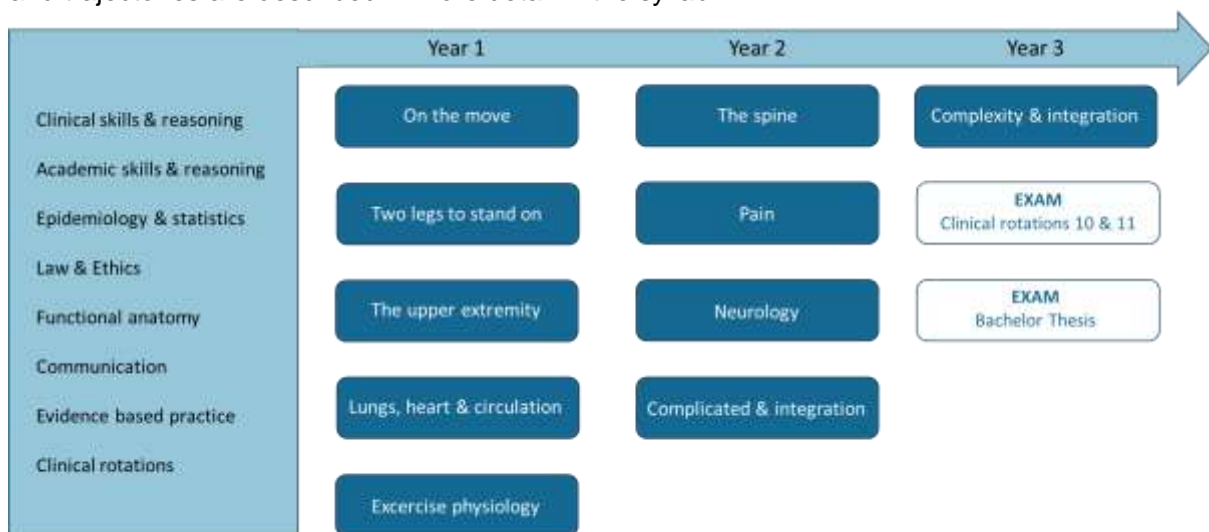
Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 2.

The BSc programme offers ample opportunities for the development of research and professional skills at academic level. The programme shows a solid structure and content in knowledge and professional skills. The programme offers a good level and preparation for further study at master level. A high knowledge and skills level is perceived, especially in statistical analyses that are performed by students. The training in statistics could be better aligned with the UM master programme. Another point of attention is the language proficiency in academic writing, which is on the radar of the programme and will be uplifted in the entire curriculum. The panel is confident that the BSc programme upholds the desired academic level.

Substantiation

Outline curriculum

The curriculum is structured by various modules and trajectories (Figure 2). Basic knowledge and professional skills are offered in the various modules. The trajectories run through all semesters, are linked to the various modules and offer knowledge and skills training in the mentioned areas. Modules and trajectories contain separate tasks, designed to stimulate an active problem-solving attitude (see also standard 3). During the programme, the task complexity of subjects and cases and the independence of student to act increase (according the ZelCom model). The modules and trajectories are described in more detail in the syllabi.



20-6-2022

SOMT University of Physiotherapy – Bachelor of Physiotherapy

Figure 2

Academic research skills

The main objective of the Academic Skills & reasoning trajectory is to provide an academic thinking and working attitude and to train academic skills and reasoning in the context of answering clinical questions and to prepare students for the BSc thesis. Giving and receiving feedback, teamwork, critical appraisal of scientific literature, and processing and presenting scientific data are practiced. Students learn to design and conduct research and to disseminate the findings of research tasks and projects. In the first years the topics are provided by the course coordinators. Later on the students can choose along their fields of interest, ultimately leading to the choice of a graduation research topic.

From examining the documents, from the syllabi of several research and communication modules and from the discussions with participants, the panel concludes that the academic research skills trajectory shows a gradual build-up in complexity and performance of students. Students start with defined cases and outlined tasks and literature. The second year offers a variety of group projects and individual assignments in more complex and multivariable contexts. Attitude and cooperation are assessed by examiners and peers. Students gradually develop themselves in the knowledge of and use of the empiric research cycle:

- a. Literature search, formulation of research question, clarifying of terminology and theoretical construct, writing of an introduction.
- b. Research design and data collection, protocol/procedures, required equipment, organisation and conduct of measurements, writing of methods section and the 'niet-WMO aanvraag'.
- c. Data analysis, data analysis plan, codebook and SPSS/Excel data files, input of data, data analysis, interpretation of findings, writing of the data analysis part of the methods section and the results section.
- d. The Epidemiology & Statistics trajectory is supportive in providing the principles and methodology of designing, conducting, and judging quantitative and qualitative scientific research. This trajectory includes the use of descriptive and inferential statistics for research purposes.

The panel finds that during the programme students are well prepared for the final graduation thesis. There is a good mix of group and individual tasks. Students' products show a high academic level in the preparation, research methodology, the performance and analysis of the research. A high level in statistical understanding is pursued; almost master level. This level is, however, not achievable for all students in the bachelor programme. The panel advises to coordinate and align the statistical education more with the master programme of the UM, where students are further trained in research. A point of attention is the language proficiency in academic writing. This can be further improved by a scientific writing course. The programme has noticed these issues throughout its quality assessments and will improve them in the entire educational programme.

Second year students will have the possibility to participate in a longitudinal cohort study on markers for intrinsic capacity in healthy aging, frailty and decline, that SOMT started in March 2022. They will perform research tasks in well-defined settings.

Professional skills

The panel is of the opinion that the BSc programme offers a wide range of possibilities to train and develop the necessary professional skills throughout the whole educational programme. These possibilities apply to the training of clinical psychomotor skills, clinical reasoning, Evidence Based Practice (EBP), communications skills, the diagnostic process and the therapeutic process. In EBP the students are trained in the clinical reasoning process and obtain the

capability to adhere to the method of Critical Appraisal of a Topic (CAT). Attention is given to the development of a student's personal and natural way of communication in the different phases of treatment. Students are trained to work in a reflective and professional way within the legal and within ethical boundaries. Professional practice is offered in the clinical lessons at SOMT (see standard 8) and in the Clinical Rotations. The clinical rotations include a ten-days internship in the second year and two times ten-weeks in the graduation phase.

The panel has had insight in the syllabi of the consecutive semesters and has seen that the professional skills trainings are intertwined in the whole educational programme in training sessions, specific tasks, skills labs and during internships. These culminate in the Clinical Rotations in which students show the combined mastery of knowledge, skills and professional attitude. The panel sees a clear build-up in the trajectories and in the combination of the supporting modules. Students are trained in increasing complexity in case histories and in the integration of clinical reasoning and clinical psychomotor skills.

Internationalisation

SOMT and the BSc programme have sought connection with the international physiotherapy community, since the BSc was not accepted as member of SROF. The BSc programme participates in the international networks ENPHE and EFIC. Furthermore the programme stays up to date of (inter)national developments by means of its contacts and collaboration with other universities.

The programme upholds a lecturer's exchange with other universities, and there is a signed memorandum of understanding with the Vrije Universiteit Brussel, St John's University in York, England and MUHAS University in Dar es Salaam, Tanzania. Nowadays, SOMT holds and Erasmus Charter for Higher Education (ECHE) which enables to participate in Erasmus+ programmes, for students to apply for grants and support in travel costs and international exchange.

The panel finds that SOMT and the BSc programme clearly invests in the maintenance and further development of its network in physiotherapy and related sciences.

Standard 3 Curriculum: Contents

The contents of the curriculum enable students to achieve the intended learning outcomes.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 3.

The BSc Physiotherapy programme offers a curriculum with a strong content in the entire programme. The set-up of the programme offers a good intertwining of knowledge on functional anatomy and offers strong training of academic skills. More attention could be given to the more professional administrative skills. The panel suggests the BSc programme to see if these skills can be incorporated more into curriculum, which has already a large amount of content.

Substantiation

Programme outline

The three years degree programme has a study load of 180 ECTS, 60 ECTS per year (see also the figure in standard 2). Each year consists of two semesters of 30 ECTS, which are divided into two periods of 15 ECTS. The average study load is forty hours per week, including on average 16 contact hours per week. In most semesters several clinical days are planned in a practice environment. In the third year two ten-weeks clinical rotations (internships) are planned.

The ILO's are leading for the learning objectives per module or trajectory. The BSc programme has invested in programme modifications since a survey in 2019 indicated that the learning curve was too steep for students going into the final year. These modifications have led to a better outlining of core knowledge and skills to the Clinical Rotations. The attention for academic skills and EBP has been better aligned and EBP and functional anatomy have been separated. Tasks within the clinical skills trajectory have been adjusted accordingly, and a new Clinical Skills 8 course has been built containing more complicated tasks.

Students who want an extra challenge can follow the honours programme, with topics on sports, didactics and anatomy, setup since 2018. Additional challenge is also offered in extra-curricular modules that are developed and executed in cooperation with several universities: Immunology (Amsterdam UMC), Medical Genetics (Leiden University), Endocrinology, Embryology, Pharmacology, Metabolism (VU, Amsterdam). The extra-curricular modules prepare students for entry to the Master programmes Arts-Klinisch onderzoeker (AKO – physician-clinical researcher) Maastricht University and the Medical Master (SUMMA) programme at Utrecht University. Side entry for the pre-master Geneeskunde (Medicine) (Zigma) is also possible. These modules offer students career opportunities in MSc programmes in the field of medicine.

The panel concludes that the educational programme is well appreciated by the students. There are no item scores below 4.0 on the National Student Survey on Content, Challenging & effort and Structure & coherence. From an alumni survey 2021 and from the audit sessions the panel concludes that the programme outline is clear for students. Students and alumni value the coherence of the programme and the educational context. More specifically, the combination of academic theoretical education and practical education is attractive for students. It offers them a challenge they cannot find in the physiotherapy programmes at universities of applied sciences.

Knowledge and skills

The curriculum starts with basic knowledge in the different modules: knowledge on extremities, the pulmonary system, the cardiovascular system, exercise physiology, the spine, pain, and neurology. One of the major basic sciences is anatomy, which is trained in an innovative way with the digital anatomy dissection table Anatomage. Together with the anatomy in vivo lessons it forms a playful way of learning.

The Clinical Skills & reasoning trajectory has been created to acquire competencies in screening, diagnosis, prognosis, treating and evaluating patients. Clinical reasoning is leading and starts with prevalent simple case studies which build up in complexity. This trajectory is connected to the knowledge modules and various other trajectories and culminates in the main Clinical Rotations. The above is supported by EBP-trajectory with a 'just-in-time' link to offer fundamentals

of clinical reasoning process and capability of CAT, enabling students to discuss how to incorporate science into clinical reasoning.

Academic skills & reasoning trajectory culminates in the BSc Thesis. The Thesis and Clinical Rotations form the graduation phase. Students learn the importance of methodical inquiry into the causes of movement dysfunction, the efficacy of rehabilitation and applied interventions, the bio-physiological and psychosocial mechanisms through which functioning can be improved. Students are urged to discover and disseminate a deeper understanding of the sciences related to physiotherapy and rehabilitation.

Students confirm in the audit sessions and in surveys that the programme offers, besides the basis knowledge, much attention for the academic research skills and attitude, including statistics, law and ethics. Students appreciate that focus is put on reflective skills and a critical attitude, which prepares them for the more complex clinical cases and problems.

According to the student more attention could be given to current administrative systems and processes, such as the proper recording of patient files, knowledge of health insurances and the practical organisation of a physiotherapy clinic. Students get acquainted with these topics in their practical periods. The panel advises the BSc programme to evaluate if and to what extent these topics can be integrated in the educational programme, which is already quite substantial.

The BSc programme wants to expand the Clinical Rotations with specialism on neuro-, cardio-, and pulmonary rehabilitation. Neurologic Rehabilitation centres have been successfully added to be mentoring clinical rotations. Addition of Clinical Rotations in Rehabilitation centres and Hospitals for cardio-pulmonary rehabilitation is difficult because: 1) Rehabilitation centres and Hospitals regard the ten-weeks clinical rotation period as too short and 2) clinical rotations in these centres already are taken by other educational institutions. The panel opts for longer Clinical Rotations (14 weeks) that might fit better with rehabilitation centres and hospitals, with more focus on rehabilitation and interprofessional cooperation.

Programme during Corona-period

After the national lockdown in March 2020 SOMT switched rapidly to online teaching and testing, using Microsoft-Teams. Lecturers have been instructed through the learning platform and online meetings, how to prepare for webinars and online teaching. However, despite these measures, online education is not sufficient to reach the learning goals of the practical lessons and those of the Clinical Rotations. In the partial lockdown period from June 2020, the BSc programme provided practical education on location as allowed.

All adjustments to the curriculum were discussed beforehand with the Examination Committee for example, the delayed skills of the former lock-down were caught up in August 2020 and repeated in the following year. For graduate students a special substitute online module was developed for the second part of the Clinical Rotations. For the 2017 cohort the CR11 was aborted after four weeks due to closure of private clinics. A special online module was developed to enable the students to meet the required competence for CR11 during six weeks. Students wrote about, discussed and debated the clinical reasoning process of a patient they had formerly seen during placement. In a small group the patient was discussed during a monodisciplinary consultation supervised by a clinical rotation supervisor. Secondly, during a six-weeks online module expert knowledge and clinical reasoning was performed supervised by an expert in the current topic.

After the end of the partial lockdowns, face-to-face education was continued. The educational schedule is published as a Teams-agenda allowing for flexible rescheduling if necessary. Extra 'Ask-the-Teacher' skills lessons have been introduced and are still provided.

SOMT has been monitoring the effects of the Covid-19 measures through students' surveys, as well as via input from the Educational-, Curriculum- and BSc Test Committees. Students have evaluated the online education in general as sufficient and welcome the idea of future blended learning. Students have welcomed the more open educational approach with less frontal teaching and more education at a 'need to know basis'. However, they also stated that it was less easy to follow online lectures and workgroup.

The panel finds that the BSc programme has acted quickly and adequately in rearranging the educational programme and the assurance that student could reach the ILOs with alternative study routes.

Standard 4 Curriculum: Learning Environment

The structure of the curriculum encourages study and enables students to achieve the intended learning outcomes.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 4.

As mentioned before, the panel finds the curriculum well-structured and clearly presented. The didactical approach is clearly based on social constructivism, problem based learning and on implementation of skills in the professional field, which offers an interactive and dynamic environment that challenges the students. It further offers students a good basis, also for further study in the affiliated master programme of the UM.

Substantiation

Didactic approach

The panel acknowledges that the BSc programme works with a clear didactical approach based on problem-based learning and social learning. The approach is well structured and clearly presented in the documentation and to students. The aim is to create an active and problem-based learning environment in which the student actively participates in the learning process and adopts a lifelong learning attitude. Students are stimulated in collaborative learning and the discovery of a deeper understanding of acquired knowledge with coaching by a tutor. This approach is endorsed by small scale education and personal attention for the students. Practical skills (e.g., psychomotor skills, anatomy in vivo, communication skills, EBP) are trained in small groups. Active self-directed learning tasks stimulate training in self-practice groups.

Students confirm that they are stimulated in the learning groups to determine and set their own learning goals. The stimulation makes them more aware and more active in determining their

study goals and study path. They recognise that it enforces their ability to develop their problem solving competencies and they see this as an important attribute to their professional development as a physiotherapist.

The panel concludes that with this didactic approach students are well prepared and obtain a good base for further study in the affiliated master programme of the UM and other master programmes. Together with the focus on implementation in the professional field, students are offered a dynamic and interactive learning environment.

The BSc programme is aware of the issue of free riding and the necessity to uphold a good balance between individual tasks and group work. Some students notified the Educational committee that with the collaborative learning and with the many group work assignments there is a risk that free riding is too long. As a result the BSc programme has reduced the group size during the curriculum to train students better in individual performance. The CAT-cases, for example, and academic skills training starts in groups of four students, which changes later into groups of two students and individual tasks.

Teaching language

SOMT is planning to offer the Physiotherapy and Rehabilitation programme also in English from the 2022-2023 academic year, after adaptations to the 2022-2023 EER and the study guide and other relevant documents have been made. Until now the programme is offered in Dutch. To fulfil the BIG requirements, elements of the Communication trajectory, Law & Ethics trajectory, and Clinical Skills trajectory that desires finesse and specific understanding, will remain in Dutch for national students. Written information (e.g. course guides, test & test plans, learning platform) is already mostly given in English, except for the trajectories Communication and Law & Ethics. The team of lecturers will be trained in English at C1 CEFR level. Arrangements have been made with the Erasmus University for this training.

The panel finds that English as main language fits with the ambitions of SOMT. SOMT might attract more international students. The panel advises to assure a basic command of the Dutch language for those students who start practicing their professional skills in their internships in an exclusive Dutch speaking environment. Good communication and understanding with patients is essential. Crucial nuances could be missed if speaking of a non-native language.

Standard 5 Intake

The curriculum ties in with the qualifications of the incoming students.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 5.

The BSc Physiotherapy applies the legal admission requirements and has an adequate admission and exemption policy. The programme is in line with the qualifications of incoming students. In addition to the admission requirements, the programme uses a study choice check and various information tools to guarantee this connection. The programme offers ample

opportunities for students' own emphasis and choices. The intake has decreased, partly due to Covid but SOMT is taking sufficient measures to strive for increasing the intake.

Substantiation

Intake and entry requirements

The entry requirement for the programme is a Dutch pre-university education diploma (VWO) with Mathematics and Biology. Diploma equivalence can be granted admission by the Board of Examiners. Non-Dutch students are required to have a sufficient knowledge of Dutch to meet the BIG-requirements. All students applying for the programme and meeting the admission requirements will be invited to attend a matching interview. This interview is mandatory and will follow a number of items and questions. Only a positive outcome of this interview allows the student to register for the programme. The connection of the pre-university VWO diploma to the bachelor programme scored very well in the National Student Survey 2021 (NSE).

Twenty-five students have started the programme in September 2022, an amount equal to the influx of the 2021-2022 academic year but lower than previous years. SOMT is aware of this and is taking several steps to try and increase the number of enrolling students. From September 2023, the tuition fees will decrease with a third to € 9,500 and SOMT is planning to build student homes on campus. Combined with the second bachelor that SOMT intends to start in September 2023. These measures will create more student life on location and in Amersfoort.

As the existence of a WO BSc of Physiotherapy is relatively unknown to future students, SOMT is also actively recruiting students with advertising campaigns, (online) open days, trial studies and training days.

Students specialization

Students who are able to handle more than the regular programme can participate in an honours programme with modules on extra topics like sports, didactics and anatomy. Students can use these modules to demonstrate a certain affinity with a topic or to expand their knowledge and competencies. As stated before, motivated students can also follow extra-curricular health-science modules to enhance their study career opportunities after the BSc programme. After following this extra-curricular programme students are eligible to enter the AKO at the UM or the Selective Utrecht Medical Master (SUMMA) at Utrecht University.

Combined with the choice of (practice) assignments, electives, internship and graduation, the panel believes that students can place their own emphasis in the programmes.

Standard 6 Staff

The staff team is qualified for the realisation of the curriculum in terms of content and educational expertise. The team size is sufficient.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 6.

The programme has a diverse, highly dedicated, highly-qualified and enterprising team of lecturers. Students are positive about the accessibility, engagement and expertise of their lecturers. Students are very pleased with the small size of groups, which benefits good mentoring. As to staff matters, special attention is required in maintaining a coherence within the team. With the relatively large share of guest lecturers and lecturers with small assignments, the panel sees a fragile balance in continuity.

Substantiation

The panel establishes that the size of the teaching team is sufficient to carry out the education programme in a suitable manner. The permanent educational team consists of the head of education, the coordinator and the permanent course coordinators and lecturers. The teaching staff consists of fifteen permanent lecturers of which four lecturers are appointed through the SOMT BSc (2,5 fte), and eleven (2,75 fte) are contracted through university partners, clinics. On top of that, there is a flexible pool of twenty-one guest lecturers (1,0 – 3,0 fte depending on the total number of students). As a result, the programme with its total permanent and flexible team has sufficient lecturers to carry out the programme. However, with the relatively large share of guest lecturers and lecturers with small assignments, the panel sees a fragile balance in continuity and possible problem of coherence within the team. The panel regards the heterogeneity in expertise, flexibility to current developments and broad knowledge of physiotherapy practice as an advantage. There is nevertheless a risk of fall out and fast turnover. The panel advises SOMT to stay alert on this relative to the number of students. The panel advises that there must nevertheless always be sufficiently substantial permanent appointments of staff members who are sufficiently committed, take ownership, and thus are sufficiently involved in the education.

The panel has met a dedicated and highly-qualified team of lecturers with a clear enterprising spirit. The academic expertise of the staff covers the contents of the curriculum. All lecturers have a master's degree. Of the permanent lecturers, two hold a Ph.D., four are Ph.D. students. Nineteen guest lecturers hold a Ph.D. The skills lecturers additionally have ongoing clinical experience. Fourteen permanent lecturers hold a Basic Educational Qualification (*Basis Kwalificatie Onderwijs* (BKO)) and three of them have qualified with the Basic Examination Qualification (*Basis Kwalificatie Examineren* (BKE)). SOMT is striving to expand the number of BKE certificated lecturers. Because of the modest size of the team, staff members take on different roles, for example: module coordinator, student coach, member of the curriculum committee, member of the exam committee, course director and/or coordinator of the final thesis. The panel sees a high work load and advises SOMT to stay alert on this topic. From the meeting with the lecturers, it became clear that they enjoy being involved in the educational organization

and being able to co-determine its course. To avoid entanglement of interests, they have rules for appointing positions in the various committees.

The Human Resource policy of SOMT is described in the Handbook HR. Staff surveys show that staff members have a strong connection with their work and are content with the possibilities of improvements and renewals. The meeting with the lecturers confirms that they are positive about the training and professionalization facilities offered by the programme. From student evaluations the panel concludes that students are positive about the quality, accessibility, engagement and expertise of their lecturers. These outcomes were also confirmed by the students the panel interviewed. The fact that the study groups are small, makes it possible to create an informal and sympathetic atmosphere. Students stated that they feel “seen” and that the threshold is low for approaching staff with questions, specific guidance or coaching issues.

Standard 7 Facilities

The accommodation and material facilities (infrastructure) are sufficient for the realisation of the curriculum.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 7.

The general educational facilities are sufficient to provide good education. The panel is pleased with the number of very modern and spacious facilities. The programme has an adequately equipped digital learning environment that also facilitates online education. The panel is positive about the recent purchase of plagiarism detection software.

Substantiation

SOMT University Campus Amersfoort has four buildings at its disposal in one of which lunch facilities are available. Students and lecturers have free access to Wi-Fi in all buildings. The buildings and the facilities are kept up with current educational practice. There are well-equipped classrooms and practical rooms. There are lecture rooms for lecturing larger groups of students and smaller rooms for interactive tutorial group sessions to create a more intimate teaching environment. Especially for the bachelor programme, a skills lab has been built. This skills lab is equipped with anatomical models, treatment couches and has audio and video equipment at disposal, which makes the rooms suitable for e-learning based education. In addition, students have access to a real-human 3D-Anatome table with which students can visualize the anatomy exactly as they would on a fresh cadaver which is at hand while studying and training. Next to the skills lab, a study library is available with learning cubicles where students can study more privately and a lounge area with books, journals, and periodicals. According to the NSE the quality of services and study facilities is well-appreciated by students. The panel is also positive about the study facilities. However it does want to ask SOMT to continuously pay attention to the availability of study rooms, with the start of an additional bachelor programme in September 2023.

Students have access to an electronic learning environment called SOMTel, which consists of different applications that can be accessed with a double verification login. Module and course information is provided on SOMTel through the Moodle application. Moodle offers learning materials for each course such as course books, course assessment and assignment information, and lectures. Students hand in their assignments through Moodle and also receive their reviews and results via Moodle. Recently SOMT has purchased plagiarism software which is appreciated by the panel.

The panel is of the opinion that the programme has adequate facilities to properly shape education and is alert to opportunities for improvement.

Standard 8 Tutoring

The tutoring of and provision of information to students are conducive to study progress and tie in with the needs of the students.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 8.

Students are positive about student guidance, for which the small-scale nature of the programme is beneficial. The panel therefore concludes that the programme is strong in its connection and relationship with students. Central to student coaching is the mentor, who guides the student throughout the programme. The provision of information is also well organized, although students note that information on study design and schedules sometimes become available at short notice.

Substantiation

Tutoring

It is the ambition of the BSc Physiotherapy to be personal and close by. The lecturers know all students by name and the mentor and head of education play a central role in the supervision. Guidance can also be given by the SOMT study advisor and the confidential advisor. Mentor guidance is development-oriented and focuses on where the student stands and where the student wants to go (personal development line). Ownership is gradually transferred more to the student during the years. Students' wellbeing is monitored during mentor sessions per student at least twice a year, and students are invited for a talk, if the mentor thinks that support might be needed. This proactive approach has been introduced due to lower survey scores in the NSE for the extent of guidance on the programme's initiative. Students who appear to have study difficulties or problems, as experienced by tutors or other students, are now invited by mentors individually. When study problems are more severe or threatening to cause a delay, the student is invited for a meeting with the head of education. A newly conducted survey among students showed that the current study guidance in 2021-2022 fulfill students' needs. This outcome was confirmed in the conversation it had with students during the site visit. The panel concludes from the discussions that the programme succeeds in sufficient study guidance and is strong in

connecting with students. The panel is positive about the gradual rise in student responsibility and initiative for asking for and receiving coaching.

Information provisioning

Provision of information to students is done via SOMTel and Moodle. Student satisfaction for the provision of information scored lower in recent years because of the transfer to Osiris in 2021, due to which results were temporarily only available in Moodle and there was less insight in study progress. Students also missed information about the design of the study. In reaction to this SOMT started with providing this information at the introduction of each study year instead of only for year 1.

Another point of attention derived from student evaluations is the study schedule, especially timely schedules and schedule changes. The schedule was normally published for students only a few weeks before the start of the semester. However, an improvement plan has been made and executed at the start of the 2021/2022 academic year. The schedule is now published a few months before the onset of the next period instead of only a few weeks. These shortcomings were also discussed extensively during OC meetings and SOMT has worked on this issue by making adjustments where possible. Students the panel spoke with, recognize that communication and timely publication of study schedules have been improved, especially for year 1.

The panel finds that a lot of information is available for students via SOMTel and Moodle. Interviews show that students are generally satisfied with the information provided. The programme has acted on problems with information on the study design and timeliness of study schedules. The panel asks SOMT to continue to pay attention to this.

Standard 9 Quality assurance

The programme has an explicit and widely supported quality assurance system in place. It promotes the quality culture and has a focus on development.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the BSc Physiotherapy programme **meets** the generic quality requirements for standard 9.

The programme has an adequate quality assurance system described in the *SOMT Manual of Quality Assurance*. This manual describes tasks, responsibilities and evaluation cycles at the level of the whole institute. At programme level, a wide range of quality assurance instruments are used in fixed evaluation cycles with both internal and external parties. The results are discussed in the relevant committees. A point of attention is the feedback on improvement actions to students and the insight in how the Plan-Do-Check-Act (PDCA) cycles are completed. The panel is confident that this will be handled properly, as the culture within the team is strongly focused on quality improvement.

Substantiation

Quality assurance and PDCA cycle

The BSc programme is included in the quality assurance system as applied within SOMT, which is published in the *SOMT Manual of Quality Assurance*. The programme structure and coherence are evaluated by the Curriculum Committee, the Educational Committee, and the Test

Committee. Evaluations and advice of these committees are part of the PDCA cycle to improve the quality of the programme. Additionally, response from alumni surveys and the National Students Survey (NSE) as well as from the Workfield Committee and work field meetings by clinical rotation supervisors are used to provide valuable information.

Performance

The process starts with course evaluations filled in by students after each block. After having shared that the data-analysis of the evaluation with the head of the educational programme and the course coordinator, a course evaluation report is composed. These evaluations reports are discussed by the Educational Committee which provides advice to the head of education. Furthermore, evaluation results are discussed by the Programme Committee and BSc Test Committee which also provide advice to the head of education. The head of education shares insights and feedback of the above-mentioned committees to the course coordinators who integrate this knowledge in improvement plans. The head of education compiles an annual report on the quality of the programme.

Based upon the course evaluations and input from the Educational Committee and Curriculum Committee, programme modifications have been made. A good example is the implementation of additional “ask and deliver” refresh skills lessons. These were provided as a solution to the adverse effects of the Covid-19 measures after problems had been raised by the Educational Committee and the student association Locomotorius. Students the panel spoke with, were very positive about these lessons. They also recognized a more active involvement of the Educational Committee in the evaluation process and the communication on improvements made. The panel also spoke with members of the Educational Committee, who confirmed the management had acted on their wish to be more actively involved in the quality process.

These actions fit well with the outcome of the NSE 2019, which showed low scores for information on the results of the educational evaluation of students and how their input had been used.

Additional to a larger role of the Educational Committee, students are more actively informed with special sessions organized each semester. In these sessions students are being informed about the PDCA cycle and the effect of their evaluations on changes and adaptations to modules and tests. Furthermore, they are granted open access to the Educational Committee reports.

From the documentation as well as from the conversations with the various discussion groups, the panel believes that the BSc Physiotherapy team works on the basis of an improvement-oriented culture. According to the panel, the team also keeps a close eye on the quality of education through daily, more informal contacts. Point of attention is the feedback on improvement actions to those involved and showing that the PDCA cycles are completed. The panel is confident that this is being actively addressed and handled properly.

Furthermore, the panel met with an active Educational Committee. This committee has an advisory and participating function on education-related matters arising from evaluations and improvement plans. The Educational Committee also submits signals from fellow students on its own initiative. The panel refers the introduction of ‘ask and deliver’ refresh skills lessons as a good example.

Standard 10 Student Assessment

The programme has an adequate student assessment system in place.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the Bachelor of Science Physiotherapy programme **meets** the generic quality requirements for standard 10.

The BSc programme Physiotherapy works along clear procedures that are derived from the SOMT assessment system and policy. The BSc programme uses a broad scale assessment methods, both formative and summative, individual and group assessments. The alignment with the ILO's is clear and students can find the information on assessments in the learning environment. The importance of good feedback for the progression of students is emphasized and shows in the filled in assessment forms.

The programme pays attention to the assurance of test quality in a broad spectrum of measures, from training of examiners, calibration before and after assessments and targeted checks of specific assessments and test. These measures lead to the necessary improvements. Students are overall positive about the assessment, especially with respect to the Clinical Rotations. The programme committees involved (Exam-, Test- and Education Committees) are set in place and fulfil their duties and responsibilities well and in a proactive manner.

Substantiation

Assessment policy

The BSc programme works along the lines of the SOMT assessment system. This system is based on constructive alignment, a leading position for clinical reasoning skills combined with the desired increase in complexity, which is in line with the curriculum structure and the didactical base. The panel finds that the assessment programme covers the educational programme structure and content well which is shown in clear overviews.

The assessment policy describes the desired variety of assessment methods and instruments. The aim is to test knowledge and understanding, application of knowledge and understanding, the making of judgments, communication skills and learning skills in accordance with the ILO's. The role of feedback in the learning process and in the stimulation of students in their development is clearly acknowledge and emphasized.

The assessment policy prescribes that intermediate student products, tests and assessment can be judged by one assessor. Final tests and exam products have to be judged by two assessors. Examiners are appointed on a yearly basis by the Examination Committee. Examiners validate the results of tests in OSIRIS. Preliminary results and reviews of tests/ portfolios/ documents are made available through the learning platform. Students can find information on test procedures beforehand on the learning platform, by means of test folders. The rules and regulations concerning assessments and examinations are described in more detail in the BSc Education and Examination Regulations (EER). This EER is available for students on the learning platform.

The panel finds that the assessment policy of the BSc programme is well described and offers a clear framework for lecturers, examiners and students on how to perform and what to expect from the testing and assessments. The panel finds that SOMT and the BSc programme have improved the assessment system since the last audit in 2018. The EER is set up in more detail. The Examination Committee is set in place and investments are made in BKE certification of lecturers/examiners (Basic Examining Qualifications) and in calibration meetings with examiners.

Execution of assessment policy

The panel studied a representative selection of tests and assessments and has spoken with lecturers and students about the topic of testing and assessments. The panel concludes that the BSc programme uses various assessment instruments such as knowledge tests, knowledge clips, clinical skills tests, clinical reasoning tests, reports, essays, videos and presentations. All together this guarantees the overall reliability of the assessments. Lecturers/examiners work with test matrices that clarify the alignment from the desired qualifications to the scope of the test and the corresponding test criteria. The corresponding information on test criteria and rubrics are well available for students.

The panel concludes on the basis of its study that a lot of high-quality feedback is given to students. The high quality feedback is especially visible in the Clinical Rotations (short and long internships) in which students are graded per competency, which gives students good insight in their performance and abilities to develop further (feedforward). The panel has established that the judgements at the final level are performed by two examiners/assessors. Before the clinical skills are tested the assessors calibrate their focus before the start of the clinical rotation assessments. As for the final thesis, calibration takes place within the central test committee and comparisons are made with other SOMT-programmes and an external similar programme.

In evaluations and in the audit meeting the students are satisfied regarding the alignment between test and course content (constructive alignment), test quality, test forms and the feedback given. Additionally the number of test moments scores well. Students receive a lot of high-quality feedback, as stated in the final NVAO documentation of 2018, for example during the Clinical Rotations. This feedback on tests and assignments during the programme is given by one assessor. Final exam products are assessed by two assessors.

During the Covid lockdown periods, there was a swift switch to digital online testing. For the practical skills and due to privacy issues this was abandoned as quickly as possible. In the partial lock-down period tests at location of SOMT were started as soon as this was possible. Many efforts have been made to prevent students from incurring too much study delay. Students were offered extra moments to prepare for assessments. Modifications were made in close consultation with the Examination Committee.

Quality assurance

The panel is of the opinion that the BSc programme has the proper facilities to safeguard the testing procedures and quality. First of all, the lecturers/examiners are responsible for a good test quality and often calibrate the assessments before, during and after the actual assessment. Calibration meetings are organized and BKE-training is offered to enhance the assessment knowledge and experience among the teaching staff. At the next level the Course Coordinators are responsible for the overall testing quality per course.

The panel means that the Examination Committee, the Test committee and the Curriculum Committee are properly set in place and perform well. The SOMT Examination Committee performs its legal duties by safeguarding the quality of the whole assessment system, appointing qualified examiners and by guarding the quality of the final graduation level. This committee shows a proactive approach, for example in the analysis of the coverage of the ILO's and competencies with the new KNGF-professional profile and changes in the CanMeds-roles. Furthermore the Examination Committee has advocated the introduction of plagiarism software.

The BSc programme's Test Committee supports the Examination Committee by formally checking assessments on validity, reliability and transparency. The Test Committee acts on its own agenda and responds to requests from the Head of the Bachelor education. The Test Committee is asked to analyse weaker performances with the assessments and to advise improvements. The Test Committee also checks the graduation assessments on a sample basis. Overall the Test Committee checks if the PDCA-cycle is functioning well with regard to testing, assessments and grading. The Test Committee can fall back on the experience and knowledge of a SOMT-central test committee that sets out procedures and formats for the common courses that the BSc programme shares with other SOMT-degree programmes.

The panel is positive regarding the way that the BSc programme has improved some courses with weak testing results, for example with the Communication and Law & Ethics courses in which the validity of the tests was an issue. The alignment of the tests with the course content has been improved. A more practical test on shared decision making and motivational interviewing has been introduced to replace a knowledge test. The focus on application of knowledge fits better with the ILO's and it enhances students' motivation. They can apply the acquired knowledge directly in practical settings. The panel is positive about the way that the BSc programme has monitored and improved the assessment quality. Evaluations of the educational assessment system demonstrate that the Clinical Skills trajectory tests were appreciated the best by students.

Standard 11 Achieved Learning Outcomes

The programme demonstrates that the intended learning outcomes are achieved.

Conclusion

Based on the considerations mentioned below, the audit panel assesses that the Bachelor of Science Physiotherapy programme **meets** the generic quality requirements for standard 11.

The graduation BSc-level is shown in the Thesis research report and in the Clinical Rotations. The panel finds that all fifteen graduation files which it studied, meet the expected final qualifications. The panel is of the opinion that there is a proper balance between the individual and duo performance in the graduation phase. Several research reports show a very high level of statistical and epidemiological quality beyond the expected levels of a BSc. The panel endorses to discuss the build-up of the statistical programme with the affiliated master programme of the UM in an open manner.

Alumni are successful in their work and MSc/PhD-study careers. They hold more different positions in the professional field than physiotherapists educated in regular programmes. Alumni often combine their physiotherapeutic work with research or quality management functions in health care.

Substantiation

Graduation phase

In the graduation phase the academic and clinical line come together in the final Bachelor thesis (15 EC) and the Clinical Rotations, based on case studies. For the thesis students deliver a Bachelor Thesis Proposal (6 EC), a research report in the form of a scientific publication and a poster presentation with an oral defence session. Often the proposal and the report are performed in duo's. The poster and presentation are always an individual proof of mastery of the desired graduation level.

For the research projects students tag along with existing research lines of SOMT or UM, where students can work with fixed large datasets. Many thesis supervisors work at the UM. The research project or study must be relevant for the physiotherapy domain. The research project can be a literature research, a cross-sectional study, clinimetric research or a randomized controlled trial. Pilot studies and secondary analyses of existing datasets are also allowed.

For the Clinical Rotations the graduate illustrates an existing case in a video registration, after informed consent from the patient and the supervisor. The student analyses the case following the steps in the physiotherapeutic process and reflects on the handling of the case and overall on each professional competency (CanMed roles).

The panel finds the set-up and content of the graduation phase clear and well described in the Thesis and Clinical Rotations guidelines and course documents. Improvements can be made in the description of the balance between individual and duo performance and grading. The thesis manual describes individual projects with the possibility to work in pairs, whereas in practice more graduates work in pairs. After the interviews with graduates, supervisors, examiners and the Examination and Test committee, the panel is convinced that the individual mastery of the competencies is well guarded in the final presentation with an oral presentation in combination with the Clinical Rotations.

All thesis supervisors hold a PhD. From the meeting with students the panel concludes that most thesis supervisors have a combined position at SOMT and at an university. According to students this poses some difficulty for them in case they need more frequent contact/guidance. The BSc programme is advised to give attention to the availability of a supervisor and the tuning of expectations with students, for example the number of guidance meetings with a supervisor during final thesis project.

Level of intended learning outcomes in graduation products

The panel has selected fifteen graduation files (products and assessments) from the last two graduation cohorts. The selection covered a wide range of physiotherapy subjects and domains. The selection comprised lower, medium and higher grades. Examples of thesis topics are: a cross-sectional study on the relation between neck pain and anxiety, depression and stress and a study into the relation between migraine and function disorders in the cervical spine. Examples of CR case reports are: the treatment of chronic low back pain, or the course of revalidation after injury of the anterior cruciate ligament.

From the theses, case studies and clinical rotation files the panel concludes that students reach the desired competencies at BSc-level. The panel sees a high level of both physiotherapeutic and

academic competencies. The theses and the Clinical Rotations show overall good quality. Graduates show a critical attitude, proactive questioning of standing procedures and advanced clinical reasoning, within the field of physiotherapy. Graduates show that they are able to work with complex cases and with the combination of academic skills and the principles of evidence-based practice. This observation is supported by work field evaluations that confirm that students are well equipped as academic physiotherapists, with a high level of critical reflection.

Some thesis reports comprise very complicated statistics and epidemiological methodology, which go beyond the expected BSc level. The panel advises to discuss the build-up of the statistics learning line with the UM partners and set clearer goals for the end-BSc-level. The panel advises not to go beyond bivariate analysis and specify this more clearly. The distinction between what is requested and what is offered in the affiliated master programmes is not clear. The panel wonders if the bachelor programme would be better served with the focus on learning how to measure and work with data and simple statistical analysis and more attention for entrepreneurship and to address the more complex statistics and analysis in the master programme. The panel supports the BSc programme to discuss this in an open manner with the UM as prominent partner.

Functioning of alumni in the work field

The audit interviews and an Alumni survey 2021 confirm that alumni are successful with their careers in the work field and in master studies. Alumni feel well prepared for the professional field and for scientific research (scores >4 for work field knowledge and the ability to apply academic competencies in the work field). The performance of students in the MSc programme of the UM is good and students pass tests mostly without resits.

Alumni show that they fulfil different positions in the professional field than physiotherapists educated in regular programmes. Alumni often combine their physiotherapeutic work with research functions in health care quality or data management.

The panel finds that students have the abilities to pursue further studies and choose more broadly than only the master programme of the UM. Many alumni have followed a second or third master programme. Twenty-five percent of alumni pursue a successful career in science and some have started their PhD studies (two in Maastricht and one in Amsterdam).

Final Conclusion

Assessments of the standards

The audit team comes to the following judgements with regard to the standards:

	Bachelor of Science in Physiotherapy
<i>Standard 1 Intended Learning Outcomes</i>	Meets the generic quality requirements
<i>Standard 2 Curriculum: Orientation</i>	Meets the generic quality requirements
<i>Standard 3 Curriculum: Content</i>	Meets the generic quality requirements
<i>Standard 4 Curriculum: Learning Environment</i>	Meets the generic quality requirements
<i>Standard 5 Intake</i>	Meets the generic quality requirements
<i>Standard 6 Staff</i>	Meets the generic quality requirements
<i>Standard 7 Facilities</i>	Meets the generic quality requirements
<i>Standard 8 Tutoring</i>	Meets the generic quality requirements
<i>Standard 9 Quality Assurance</i>	Meets the generic quality requirements
<i>Standard 10 Student Assessment</i>	Meets the generic quality requirements
<i>Standard 11 Achieved Learning Outcomes</i>	Meets the generic quality requirements

The judgements have been weighed in accordance with the NVAO assessment rules. On the basis of this, the audit panel assesses the quality of the existing BSc programme Physiotherapy of SOMT as **positive**.

Recommendations

The audit panel has the following recommendations to support the further development of the degree programme:

Standard 1

- The panel advises to describe the BSc final level in the ILO's more precisely to set it apart more clearly from the MSc level.

Standard 2

- The panel advises to pursue with the intended course to improve the language proficiency in academic writing.

Standard 3

- The panel advises to keep hold open discussions with the UM regarding the build-up and tuning of the learning lines in statistics and epidemiology.
- The panel suggests the BSc programme to see if professional administrative skills can be incorporated more into the already full curriculum. The panel opts for longer Clinical Rotations (14 weeks) that might fit better with rehabilitation centres and hospitals, with more focus on rehabilitation and interprofessional cooperation.

Standard 6

- The panel advises to strengthen the number of permanent positions of staff who are sufficiently committed, take ownership, and thus are sufficiently involved in education.

Standard 7

- The panel advises SOMT to pay attention to the availability of study rooms, with the start of the additional bachelor programme in September 2023.

Appendices

Appendix 1: Programme of the Site Visit

Preparatory meeting April 28th 2022

Time	Theme	Participants
10.00-10.15	Welcome	Panel and management SOMT and programme CEO SOMT Head BSc in Physiotherapy Head of Education and Research Professor of Physiotherapy Maastricht University
10.15-13.15	Preparatory meeting panel, documentation study, tour of facilities and lunch	
13.15-14.15	Discussion regarding (development) themes and central issues for the site visit	Panel and management

Site Visit May 10th 2022

Time	Theme	Participants
10.00-10.30	Presentation by the programme	Panel and management SOMT and programme CEO SOMT Head BSc in Physiotherapy Head of Education and Research Professor of Physiotherapy Maastricht University (online)
10.30-11.30	Teachers and examiners	Coordinator Neurology Module and student mentor Member Work Field Committee Coordinator Thesis, member Test Committee Coordinator BSc Physiotherapy Coordinator Academic skills Coordinator Clinical Rotations Clinical Rotations Supervisor and representative work field
11.30-11.45	Short break	
11.45-12.45	Students and alumni	Student year 1 Student year 2 Student year 3 Master student Master of Human Movement Sciences track physiotherapy University of Maastricht Master student Arts-Klinisch Onderzoeker, University of Maastricht
12.45-13.30	Lunch break	
13.30-14.15	Education Committee (OC), Examinaton Committee, Test Committee, Research Committee	Chair and a member of Education Committee Chair research committee

		Member Test Committee Chair Education Committee
14.15-14.30	Short break	
14.30-15.00	Management	CEO SOMT Head BSc in Physiotherapy Head of Education and Research Professor of Physiotherapy Maastricht University (online)
15.00-16.00	Deliberation meeting panel	
16.00-16.15	Feedback by the panel	
16.15-17.00	Development conversation	Panel and management

Appendix 2: Documents Examined

Self-evaluation report Bachelor of Science in Physiotherapy, March 2022

KNGF National professional profile physiotherapists 2021-2022

ILO's matrix 2018-2021 en 2022

Study guide BSc 2021-2022

Schematic overview programme BPT

Prescribed literature BSc

Staff and Guest Lecturers 2020-2021

Internship Information Full-time Clinical Rotation Year 3

BPT19 CR 10/11

Internship Grading assessment CR10/11

Internship Assessment CR 10-11

Internship CR Assignment CR 10 and CR11

EER – OER Bachelor 2021-2022

Examination Committee SOMT Annual Report 2020-2021

Test folder CR 10 and CR11

Test matrix BPT 2021

Thesis Course Book BPT18 – Bachelor Thesis Guidelines 2020-2021

Thesis Guidelines Bachelor Thesis, Short Dutch Version 2020-2021

List of graduates year 2019-2020 and 2020-2021

2018 Report extra assessment

Selection of 15 graduate files from cohorts 2019-2020 and 2020-2021, chosen by ratio of student numbers, given grades and specialisation. Every file consisted of a Thesis report, presentation and the Clinical Rotation 11 reports and product with the respective assessments forms.

Appendix 3: Intended Learning Outcomes

A student having successfully completed the BSc and master programme:

- a. acts and thinks with a strong awareness of the concept of a physiotherapy professional at a basic academic and clinical level.
- b. is conversant with the terms, theories, and key concepts of the underlying basic disciplines and is able to communicate this to other stakeholders.
- c. is conversant with current health care and practice problems, questions, and challenges in the field of physiotherapy, and is able to interpret and explain and act on these problems in both theoretical academic and professional setting with awareness of the responsibility to society.
- d. has organizing clinical thinking and reasoning skills at BSc level, demonstrable in well described supervised to non-supervised training situations during the Clinical Rotations.
- e. is able to demonstrate integrated academic and clinical competencies (science in practice) including critical appraisal and Evidence Based Practice (EBP).
- f. has broad knowledge and skills in the physiotherapy sciences and is able to comply with current and future clinical guidelines and professional standards at BSc / MSc level and communicate this to stakeholders
- g. is able to adequately communicate in both written and spoken language to specified target groups (share knowledge, collaboration with other professionals, researchers, companies) and use this communication in collaboration with other stakeholders.
- h. has developed a lifelong learning, organizing and critical thinking attitude and skills and acts accordingly with respect and responsibility towards own functioning as well as to society.

a-h are further defined in 31 sub-ILO's. Coverage of Dublin Descriptors at Bachelor level is substantiated in an ILO Matrix.