

# **VITALITY AND AGEING**

PROVIDED BY THE LEIDEN UNIVERSITY

MEDICAL CENTER (LUMC)

**LEIDEN UNIVERSITY**

QANU  
Catharijnesingel 56  
PO Box 8035  
3503 RA Utrecht  
The Netherlands

Phone: +31 (0) 30 230 3100  
E-mail: [support@qanu.nl](mailto:support@qanu.nl)  
Internet: [www.qanu.nl](http://www.qanu.nl)

Project number: Q0764

© 2020 QANU

Text and numerical material from this publication may be reproduced in print, by photocopying or by any other means with the permission of QANU if the source is mentioned.



# CONTENTS

**REPORT ON THE MASTER’S PROGRAMME VITALITY AND AGEING OF LEIDEN UNIVERSITY** ..... **5**

ADMINISTRATIVE DATA REGARDING THE PROGRAMME..... 5

ADMINISTRATIVE DATA REGARDING THE INSTITUTION..... 5

COMPOSITION OF THE ASSESSMENT PANEL ..... 5

WORKING METHOD OF THE ASSESSMENT PANEL ..... 6

SUMMARY JUDGEMENT..... 9

DESCRIPTION OF THE STANDARDS FROM THE ASSESSMENT FRAMEWORK FOR LIMITED  
FRAMEWORK ASSESSMENTS..... 12

**APPENDICES** ..... **23**

APPENDIX 1: DOMAIN-SPECIFIC FRAMEWORK OF REFERENCE ..... 25

APPENDIX 2: INTENDED LEARNING OUTCOMES ..... 26

APPENDIX 3: OVERVIEW OF THE CURRICULUM ..... 27

APPENDIX 4: PROGRAMME OF THE SITE VISIT ..... 28

APPENDIX 5: THESES AND DOCUMENTS STUDIED BY THE PANEL ..... 29

This report was finalised on 12 June 2020



# REPORT ON THE MASTER'S PROGRAMME VITALITY AND AGEING OF LEIDEN UNIVERSITY

This report takes the NVAO's Assessment Framework for the Higher Education Accreditation System of the Netherlands for limited programme assessments as a starting point (September 2018).

## ADMINISTRATIVE DATA REGARDING THE PROGRAMME

### Master's programme Vitality and Ageing

Name of the programme:	Vitality and Ageing
CROHO number:	60515
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Location(s):	Leiden
Mode(s) of study:	full time
Language of instruction:	English
Submission deadline NVAO:	01/11/2020 <sup>1</sup>

The visit of the assessment panel Health Sciences to the Leiden University Medical Center (LUMC) where the master's programme Vitality and Ageing is provided on behalf of Leiden University took place on 11 March 2020.

## ADMINISTRATIVE DATA REGARDING THE INSTITUTION

Name of the institution:	Leiden University
Status of the institution:	publicly funded institution
Result institutional quality assurance assessment:	positive

## COMPOSITION OF THE ASSESSMENT PANEL

The NVAO has approved the composition of the panel on Health Sciences on 20 December 2019. The panel that assessed the master's programme Vitality and Ageing consisted of:

- Prof. dr. L.J. (Louise) Gunning-Schepers, professor Health and Society at the University of Amsterdam [chair];
- Prof. dr. E. (Erik) Buskens, professor Health Technology Assessment at the University of Groningen;
- Prof. dr. J. (Joost) Weyler, professor emeritus Epidemiology at the University of Antwerp (Belgium);
- C.P.L. (Carel-Peter) van Erpecum MSc., PhD candidate at the department of Epidemiology of the Faculty of Medical Sciences of the University of Groningen [student member].

The panel was supported by A.P. (Anke) van Wier MA, who acted as secretary.

---

<sup>1</sup> Deadline extended until 30/10/2021, following WHW art. 5.16 paragraph 4

## WORKING METHOD OF THE ASSESSMENT PANEL

The site visit to the master's programme Vitality and Ageing of Leiden University and the Leiden University Medical Centre was part of the cluster assessment Health Sciences. Between March and December 2020 the panel assessed three programmes at three universities. The following universities participated in this cluster assessment: Leiden University, Vrije Universiteit Amsterdam, Erasmus University Rotterdam. Due to the COVID-19 outbreak, the site visits of the Vrije Universiteit Amsterdam and Erasmus University Rotterdam had to be postponed until December 2020 and November 2020, respectively.

On behalf of the participating universities, Quality Assurance Netherlands Universities (QANU) was responsible for logistical support, panel guidance and the production of the reports. A.P. (Anke) van Wier MA was project coordinator for QANU. A.P. (Anke) van Wier MA acted as secretary in the cluster assessment.

During the site visit at Leiden University, the panel was supported by A.P. (Anke) van Wier MA, a certified NVAO secretary.

### *Panel members*

The members of the assessment panel were selected based on their expertise, availability and independence. The panel consisted of the following members:

- Prof. dr. L.J. (Louise) Gunning-Schepers, professor Health and Society at the University of Amsterdam [chair];
- Prof. dr. E. (Erik) Buskens, professor Health Technology Assessment at the University of Groningen;
- Prof. dr. J. (Joost) Weyler, professor emeritus Epidemiology at the University of Antwerp (Belgium);
- C.P.L. (Carel-Peter) van Erpecum MSc., PhD candidate at the department of Epidemiology of the Faculty of Medical Sciences of the University of Groningen [student member].

Due to personal circumstances Prof. dr. E. Buskes was unable to attend the site visit. He was involved in the preparatory work for the site visit, and provided the panel with extensive input on the programme and the theses he studied. Prof. Buskens also read and commented on the draft report. Due to the outbreak of COVID-19, C.P.L. van Erpecum was unable to be physically present at the site visit. Leiden University arranged a video connection, and he was able to participate in the full site visit in this manner. Both of these cases were discussed with the NVAO prior to the site visit, and had been approved by the responsible policy officer for this cluster, Tinka Thede.

### *Preparation*

On 16 January 2020, the panel chair was briefed by QANU on her role, the assessment framework, the working method, and the planning of site visits and reports. A preparatory panel meeting was organised on 10 March 2020. During this meeting, the panel members received instruction on the use of the assessment framework. The panel also discussed their working method and the planning of the site visits and reports.

The project coordinator composed a schedule for the site visit in consultation with the programme management. Prior to the site visit, the management of the programme Vitality and Ageing selected representative partners for the various interviews. See Appendix 4 for the final schedule.

Before the site visit to Leiden University, QANU received the self-evaluation reports of the programmes and sent these to the panel. A thesis selection was made by the panel's chair and the project coordinator. The selection consisted of 15 theses of graduates between 2018-2019. Subsets and assessment forms for the programme were distributed among the panel members. A variety of topics and a diversity of examiners were included in the selection. The project coordinator and panel

chair verified that the distribution of grades in the selection matched the distribution of grades of all available theses.

After studying the self-evaluation report, theses and assessment forms, the panel members formulated their preliminary findings. The secretary collected all initial questions and remarks and distributed these amongst all panel members.

At the start of the site visit, the panel discussed its initial findings on the self-evaluation reports and the theses, as well as the division of tasks during the site visit.

#### *Site visit*

The site visit to Leiden University took place on 11 March 2020. Before and during the site visit, the panel studied the additional documents provided by the programme. An overview of these materials can be found in Appendix 5. The panel conducted interviews with representatives of the programme: students and staff members, the programme's management, alumni, the Older Persons Advisory Board, the programme committee and representatives of the Board of Examiners. It also offered students and staff members an opportunity for confidential discussion during a consultation hour. No requests for private consultation were received.

The panel used the final part of the site visit to discuss its findings in an internal meeting. Afterwards, the panel chair publicly presented the panel's preliminary findings and general observations.

#### *Consistency and calibration*

In order to assure the consistency of assessment within the cluster, various measures were taken:

1. The panel composition ensured regular attendance of (key) panel members, including the chair;
2. The coordinator was present at the start of all site visits as well as the panel discussion leading to the preliminary findings at all site visits.

#### *Report*

After the site visit, the secretary wrote a draft report based on the panel's findings and submitted it to colleague for peer assessment. Subsequently, the secretary sent the report to the panel. After processing the panel members' feedback, the project coordinator sent the draft report(s) to the Faculty in order to have it/these checked for factual irregularities. The project coordinator discussed the ensuing comments with the panel's chair and changes were implemented accordingly. The report was then finalised and sent to the Faculty and University Board.

#### *Definition of judgements standards*

In accordance with the NVAO's Assessment framework for limited programme assessments, the panel used the following definitions for the assessment of the standards:

#### **Generic quality**

The quality that, from an international perspective, may reasonably be expected from a higher education Associate Degree, Bachelor's or Master's programme.

#### **Meets the standard**

The programme meets the generic quality standard.

#### **Partially meets the standard**

The programme meets the generic quality standard to a significant extent, but improvements are required in order to fully meet the standard.

#### **Does not meet the standard**

The programme does not meet the generic quality standard.

The panel used the following definitions for the assessment of the programme as a whole:

**Positive**

The programme meets all the standards.

**Conditionally positive**

The programme meets standard 1 and partially meets a maximum of two standards, with the imposition of conditions being recommended by the panel.

**Negative**

In the following situations:

- The programme fails to meet one or more standards;
- The programme partially meets standard 1;
- The programme partially meets one or two standards, without the imposition of conditions being recommended by the panel;
- The programme partially meets three or more standards.

## SUMMARY JUDGEMENT

### *Intended learning outcomes*

According to the panel, the master's programme in Vitality and Ageing has a strong and unique profile. Its vision on vitality and ageing and its interdisciplinary character make it unique within the Netherlands. It cleverly integrates various disciplines to teach academic professionals and researchers to improve the care for and welfare of older persons on the biological, individual and societal level. The panel does see room for further clarification in the programme's aims and job perspectives: does it seek to train policy-makers, academic researchers, or both? It observed that the programme's intended learning outcomes offer room for both these career options. The panel would like the programme to place different emphases for research- and policy-oriented students.

The panel considers the programme's intended learning outcomes to be fitting for an academic master's programme and a clear translation of its profile. They have the appropriate level and orientation for an academic master's programme. It praises the ways attention is paid to skills and the interdisciplinary character of the programme.

### *Teaching-learning environment*

The panel is impressed with the curriculum of the master's programme Vitality and Ageing. Its content is a clear reflection of the programme's specific profile and aims. The panel appreciates the programme's design, with its three educational lines and the content-driven modules structured in a micro-meso-macro manner. It is very positive about the way the programme pays attention to the training of 'soft skills' such as presenting, teamwork and reasoning within the various courses. The aim of offering interdisciplinary teaching is also realised within the programme, and the interdisciplinary course teams are a great asset in this respect.

The internship (often international), conducted within the context of the Science and Career module, is another strong element of the programme. The panel does recommend that the programme offers specific (methodological) support for students conducting their internship in professional organisation, to make sure all students are properly prepared for the research they carry out within the context of the Science and Career module.

The teaching model employed by the programme, the HILL model (High Impact Learning that Lasts), is adequately implemented, and the panel established that it helps shape day-to-day teaching in the programme. The students appreciate the teaching in the programme, and the panel considers the teaching model to be diverse, stimulating and contemporary.

The involvement of the 'Older Persons Advisory Board' in designing the programme and in educational activities is another strong element that ensures the relevance of the course's topical focus according to the panel. The involvement of this key group of stakeholders is highly appreciated by both students and the group of older persons themselves. The panel does recommend that the programme diversify the group of older individuals with whom the students come into contact.

The quality of the teaching staff in the programme is high. The panel confirmed that there are sufficient numbers to ensure a high standard of education. It concludes that the teaching team is well balanced between senior and early-career teachers. The programme has adequate measures in place to ensure the level of English of the teaching staff is satisfactory. It performs satisfactorily regarding teaching professionalisation (BKO/SKO) as well.

The programme emphasises the students' preparation for a future career after the program through mentoring, orientation visits, skills training sessions and internships. There is a comprehensive system of study guidance in place. The students appreciate that attention is paid not only to academic development but to personal development as well. The panel did observe that many students extend their studies due to the internship. It asks the programme to be mindful of this, and wherever



possible communicate the desired length of an internship contract with the organisations where the students carry out their internships.

The teaching language in the programme is English. The panel judges the programme's arguments in favour of using English to be valid. It observed that the programme has succeeded in making its curriculum truly internationally oriented, but also notes some tension in this regard. This tension relates to the involvement of the Older Persons Advisory Board in an English-spoken environment, to the relations with the Dutch professional field, and to the efforts involved in creating an international classroom with limited numbers of international students. For these reasons the panel would like the programme to continue in English and invest considerably in the recruitment of international students. If this is not possible, the programme should change the programme's language of instruction to Dutch to reap the benefits of the immediate environment, while keeping the programme's international orientation.

#### *Student assessment*

The panel confirmed that the master's programme Vitality and Ageing has a good assessment system that fits with its educational philosophy. The assessment plan is well-designed, properly implemented and contributes to the validity, reliability and transparency of assessment in the programme. The panel is positive about the implementation of its two main principles, namely constructive alignment and the conception of assessment as meaningful learning moments

The panel is appreciative of the often innovative forms of assessment and concluded that the programme's assessment forms are an excellent fit to its intended learning outcomes and overarching profile. The students are trained in and assessed on relevant skills, and they often receive valuable feedback from their tutors. The panel wants to encourage the programme to provide students who produce good work with points for improvement in the future and not just provide feedback to student work that is on the lower end of the grading curve. It commends the programme's plan to explicitly assess each student's cooperation skills in group work.

Regarding the assessment of the final work, the panel would like to see the programme revise the assessment form of the final work to include policy-oriented aspects, for example, by including a section on implications or by allowing students more flexibility in the form of their final work.

The panel is very impressed by the work and professionalism of the Board of Examiners. The Board has a clear view of its tasks and responsibilities, carries out its tasks in a proactive manner, and is in control of safeguarding assessment quality. It backs the Board's wish for an extra member, and recommends that the programme appoints one.

#### *Achieved learning outcomes*

The panel concluded that graduates of the programme achieve the intended learning outcomes. The quality of their final projects ranged from sufficient to high. The panel established that graduates of the programme generally find their way to relevant and diverse professional positions that match their degree level. The alumni are positive about how the programme prepared them for the professional field. The panel was pleased to learn that many of the programme's alumni find their jobs through the programme. Following the students' comments, it recommends including more practitioners in the programme's guest lectures, as this could help strengthen the students' professional networks.

The panel assessed the standards from the *Assessment framework for limited programme assessments* in the following way:

*Master's programme Vitality and Ageing*

Standard 1: Intended learning outcomes	meets the standard
Standard 2: Teaching-learning environment	meets the standard
Standard 3: Student assessment	meets the standard
Standard 4: Achieved learning outcomes	meets the standard
General conclusion	positive

The chair, Prof. dr. L.J. Gunning-Schepers, and the secretary, A.P. van Wier MA, of the panel hereby declare that all panel members have studied this report and that they agree with the judgements laid down in the report. They confirm that the assessment has been conducted in accordance with the demands relating to independence.

Date: 12 June 2020

# DESCRIPTION OF THE STANDARDS FROM THE ASSESSMENT FRAMEWORK FOR LIMITED FRAMEWORK ASSESSMENTS

## **Standard 1: Intended learning outcomes**

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

## **Findings**

### *Profile*

The master's programme 'Vitality and Ageing' is offered by the Leiden University Medical Center (LUMC) of Leiden University (LU). The programme aims to train its students to become academic professionals and engaged citizens who are competent and trained in an interdisciplinary and international manner. Furthermore, they are able to contribute to solutions for the challenges facing an ageing society. The internationally oriented, one-year (60 EC) programme aims to provide students from a wide variety of backgrounds with the knowledge and skills they need to become academic professionals who are capable of improving the care and welfare of older people in ageing societies. Until 2016 the programme was offered as a non-funded, post-initial master's programme by the Leyden Academy, a private academic institute linked to Leiden University.

In the interviews, the programme management indicated that the concepts of vitality and ageing are understood to be complementary, perhaps even considered as 'vitality *in* ageing'. The programme takes an interdisciplinary approach by focusing on the biological, individual and societal aspects of vitality and ageing. Its focus is on vitality and ageing in a broad sense, ranging from repair mechanisms in tissue, individual resilience and the psychological effects of ageing, to societal perspectives and strategies around ageing and ageing populations. It integrates and draws on disciplines such as biomedical science, medical science, healthcare science and management, social and behavioural sciences, and governance and global affairs. Its argument is that, in order to improve the care for and welfare of older persons, academic professionals need an integrated perspective, being skilled and knowledgeable in both the care and policy dimensions of vitality and ageing. Its explicit focus is on older people's needs in domains such as health, welfare and housing. The panel considers this focus sufficiently clear and is happy to see the programme has taken up the previous assessment panel's recommendation to clarify its understanding of the concepts of vitality and ageing.

The panel praises the programme for its clear focus, and states that this is a unique programme in the Netherlands. It also appreciates the international benchmark the programme has carried out, and supports the exchanges of staff and students the programme wishes to set up with similar programmes abroad. It is positive about the timeliness of the programme and discerns a clear societal need for skilled academic professionals in this field. It does see room for further clarification of its ultimate aim in the programme's profile; does it seek to train policymakers and/or professionals or academic researchers? The programme states that it seeks to do both, which is commendable, but, the panel observed some discrepancies between these aims and the way they are taken up in the programme's curriculum and examination. It therefore recommends the programme to pay more attention to policy consequences for the more research-oriented students. For the more policy-oriented students, the analysis of an existing body of research evidence as a basis for policy could be made more explicit, thereby focusing more on their skill in meta-analysis. This will be elaborated on below (see standards 2 and 3). Another issue that could be clarified in the panel's opinion is that the programme should in its advertising and marketing not to give the impression that students can become medical doctors after following this programme. There are medical doctors who have completed this programme, but only after completing their initial master's in medicine. The panel asks the programme to ensure these conditions are stated in its marketing.

### *Intended learning outcomes*

The programme's final qualifications can be found in Appendix 2. The intended learning outcomes are explicitly linked to the Dublin descriptors for master's programmes, and thus have a suitable level and orientation. The panel therefore considers them appropriate for an academic master's programme. They are ambitious, concrete, coherent and clearly formulated. The panel is positive about the clear integration of the programme's interdisciplinary focus in the intended learning outcomes. Also, it praises the programme for the way it has integrated skills in the final qualifications; the intended learning outcomes refer both to general or 'soft' skills and to discipline-specific skills. The programme indicated that, as 60 EC offers limited time for teaching, the aim is to equip students to become life-long learners who keep developing themselves throughout their careers. The panel states that the intended learning outcomes offer ample room to realise these aims.

### **Considerations**

According to the panel, the master's programme in Vitality and Ageing has a strong and unique profile. Its vision on vitality and ageing and its interdisciplinary character make it unique within the Netherlands. It cleverly integrates various disciplines to teach academic professionals and researchers to improve the care for and welfare of older persons on the biological, individual and societal level. The panel does see room for further clarification in the programme's aims and job perspectives: does it seek to train policy-makers, academic researchers, or both? It observed that the programme's intended learning outcomes offer room for both these career options. The panel would like to programme to place different emphases for research- and policy-oriented students.

The panel considers the programme's intended learning outcomes to be fitting for an academic master's programme and a clear translation of its profile. They have the appropriate level and orientation for an academic master's programme. It praises the ways attention is paid to skills and the interdisciplinary character of the programme.

### **Conclusion**

*Master's programme Vitality and Ageing:* the panel assesses Standard 1 as 'meets the standard'.

### **Standard 2: Teaching-learning environment**

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

### **Findings**

#### *Curriculum*

The one-year (60 EC) master's programme Vitality and Ageing offers an integrated programme consisting of an introductory course, three content-driven modules, and three educational lines focussed on skills, and finishes with a module that contains the internship and final thesis. A schematic overview of the programme can be found in Appendix 3. The structure of the educational programme is based on the Leiden 100-600 level structure. In the master's programme, modules are only offered at the 400, 500 and 600 levels. In practical terms, these levels translate as a specialist course (400), an advanced course with a clear academic and research focus (500), and a very specialist course and/or master thesis project, demanding autonomy and independence from the students in the research methods and skills applied (600). In the panel's view, this course level structure reflects and safeguards the level requirements for a master's degree.

The programme starts with the introductory course Future Perspectives (3 EC), which presents some themes of the master's programme and sets the scene specifically for the three educational lines. This course also contains the recently added individual learning pathway, which allows students 1.5 EC of space to formulate and fulfil a personal learning objective. The three educational lines (5 EC each) run parallel to the programme's content courses. They are Communication in Science, Academic Development, and Research and Evidence. The first one is aimed at developing the



student's written and spoken communication skills in both academic and professional contexts. The Academic Development line focuses on personal and career development, interdisciplinary teamwork and academic thinking. It contains the programme's study trips, its mentor programme and seminars related to leadership and philosophy. The Research and Evidence line deals with research design and methods, both qualitative and quantitative.

The student chapter in the self-evaluation report and the students the panel spoke to, state that the structure with the three parallel lines can be a bit confusing at times, but is generally appreciated by them. The panel understands that this structure might indeed be complicated at times, but is also of the opinion that these lines serve to integrate the programme quite well. It applauds the way the programme pays attention to the training of the student's 'soft skills' such as presenting, teamwork and reasoning through the courses in these educational lines.

The three content-driven courses are Biology of Vitality and Ageing, The Older Individual, and Organisation of the Ageing Society, each worth 10 EC. The first one starts by examining the ageing process at the molecular level, and aims to help the students understand the processes of ageing and age-related diseases at a cellular level. This presents a perspective on solutions aimed at enhancing vitality. The second course, The Older Individual, focuses on the impact of the ageing process on individuals, and what this means for the mental and physical health of older persons. Students develop interventions aimed at improving the life of older people in co-creation with older individuals themselves. The final content-driven module, Organisation of the Ageing Society, is partially offered at the Leiden University campus in The Hague, using the expertise on public administration present in the Faculty of Governance and Global Affairs. This course addresses questions related to the healthcare needs of an ageing society, its policy options and how organisations deal with the challenges that this creates.

The programme's final course is the Science and Career module (12 EC), a 10-week period in which students complete an internship and write their thesis on a topic related to it. These internships can be carried out in an academic setting (within the LUMC or externally) or in organisations in the field. The students are explicitly encouraged to go on international internships, and this is facilitated by the programme by offering lists of opportunities, contacts and consultation sessions. All internship positions and proposals have to be approved by the Master Internship Committee (MIC). The students are supervised by a member of the receiving organisation and by the coordinator of the Science and Career module or a LUMC researcher. During the internship the student carries out research within the department that they are placed in. This research is translated into an academic research paper. The internship is another strength of the programme in the panel's opinion. It helps the students get hands-on experience in the field and develop their skills further.

The panel observed some tension between the goal of an academic research paper, the intended learning outcomes oriented in both a policy and an academic direction, and the existence of only 5 EC of methods courses in the programme in the Research and Evidence educational line (see also standard 3). The Science and Career module covers both qualitative and quantitative research methods. The panel observed that students who conduct their internship in an academic context often receive further methodological training. For those who do their internship in organisations in the professional field, the training-on-the-job often takes a different direction. The panel therefore observed that the theses of students in the latter category often show limited development in this respect. After speaking with the students, alumni and staff, it concluded that this format, i.e., conducting their internship outside the academic context limits students' development in this particular aspect. Meanwhile the panel maintains that the internships in the professional field are incredibly valuable. It therefore recommends the programme extends its offer of specific support related to student's research topics and chosen research methods, especially for students that conduct their internships outside of academia. This way all students are enabled to conduct high-quality research in their final work.

The panel is also in favour of more flexibility in the form of the final thesis, and to allow students to write a thesis that has a more policy-oriented approach. This of course would not entail that student's do not conduct academic research. Those students that write a more research-oriented thesis, should

be urged to consider the practical consequences of their findings in more detail, and consider steps in the implementation of possible solutions. And the policy oriented theses, should make more explicit on which academic research evidence the policy or practical recommendations are based, and in that way adopt an approach more geared towards meta-analysis.

In general, the panel is very positive about the programme's structure, it greatly appreciates the micro-meso-macro construction. It noted that the programme realises its ambitions to offer an interdisciplinary programme through these courses, in which various disciplines are cleverly brought together. When speaking to the programme's staff, it learned that these courses are developed in interdisciplinary teams, involving psychologists, medical doctors and public administration scholars in the design of the teaching. It appreciates that the programme makes clear choices about what to cover. The programme management indicated that the central criterion is that interventions related to improving older persons' well-being are central. For this reason, for example, the programme has chosen to include the dimension of housing, but not pensions. The involvement of the Older Persons Advisory Board (see below) in designing the programme is another strong element that ensures the relevance of the course's topical focus according to the panel.

#### *Educational profile*

Teaching in the master's programme Vitality and Ageing is shaped on the HILL model (High Impact Learning that Lasts). The HILL model is based on seven building blocks: Urgency, Action & sharing, Hybrid learning, Learner agency, Collaboration & coaching, Flexibility, and finally Assessment as learning. It takes student-centeredness and active learning as its leading principles. It supports the integrated approach the programme takes to teach both academic skills and content in one curriculum. During the site visit, the panel spoke to the programme management, teaching staff, students and alumni and learned that this educational profile is widely recognised and implemented in the programme. The students appreciate the personal focus and flexibility this model allows and speak highly of the varied forms of teaching they encounter. The panel is generally very positive about the teaching in the programme. It considers it diverse, stimulating and contemporary.

The panel also appreciates that the students learn not only from their tutors, but also from each other to a large extent. As a result of the diverse inflow of students, there is a wide variety in prior knowledge and backgrounds. The panel learned that the teaching staff stimulates the students to teach each other wherever they have relevant prior knowledge; one example it learned about concerned the first course Biology of Vitality and Ageing, in which students with a (bio-)medical background are stimulated to work together with students with less prior knowledge in the field of biology. The panel also learned about an initiative, to be launched next academic year, for an online module, to prepare students without a (bio-)medical background for this course. The panel is positive about this online course, as this would enable the course itself to go even deeper into its subject matter.

The programme is supported by the Older Persons Advisory Board 'Care and Wellbeing' South-Holland North (Ouderenberaad 'Zorg en Welzijn' Zuid-Holland Noord, hereafter 'Advisory Board'). This group of around 20 seniors is involved in the master's programme at several levels. First, they advise the staff on how the programme could provide the most benefit to the lives of elderly people. The programme management indicated that regular reflections on suggested topics have resulted in the addition of important new topics in the programme: housing, advanced care planning and the financial situation of older persons were introduced based on feedback of the Advisory Board. Second, the Advisory Board participates frequently in educational activities. Its members are interviewed by students several times during the programme, and join panels that reflect on innovative products of the students. This happens for example in The Older Individual module, in so-called co-creation sessions.

The involvement of this key group of stakeholders is highly appreciated by both the students and the group of older persons themselves. The panel considers this to be a very strong point of the programme. In its opinion, speaking to older persons helps the students to consider the needs of these key stakeholders and allows them to target possible interventions better. It did note that the



Advisory Board mostly consists of better educated white seniors. It would therefore recommend introducing more diversity into the Advisory Board and/or the elderly whom the students talk to. It expects that the needs of Dutch seniors with a migrant background will be very different from the needs of the average member of the current Advisory Board. It also learned from the interview with the Advisory Board that they would like to read some theses from the programme's students, as they often contribute to these final works. The panel understands and appreciates this interest, and would appreciate it if the programme find a way to grant access to the students' final works.

#### *Teaching staff*

The quality of the teaching staff in the master's programme Vitality and Ageing is high. The team consists of coordinators, junior lecturers and expert lecturers. The panel found that the teaching team is well balanced, containing a good mix of both early-career and more senior teachers and researchers. The junior lecturers, who are all alumni of the programme themselves, lead the working groups and function as mentors for the students. Frequent use is made of expert lecturers. The students value the frequent use made of these guest lecturers, who come from both academia and the professional field. The panel appreciates that the programme's coordinators are present at all guest lectures, to ensure the programme's cohesion. It observed that the lines of communication are short, and that the students feel seen by the programme's staff. They spoke highly of both the expert lecturers and their mentors.

The programme performs well when it comes to teaching staff professionalisation according to the panel. All of the programme's key staff have either obtained their University Teaching Qualification (BKO – Basiskwalificatie Onderwijs) or are working on it. A number of the programme's coordinators are working on their Senior Teaching Qualification (SKO – Seniorekwalificatie Onderwijs). The students the panel met with are satisfied with the level of English of their teachers. It confirmed that the programme has a solid policy in place to ensure that all teaching staff has an adequate level of English. All teaching staff has to meet level CEFR C1 in English, with training and a formal test being part of the BKO trajectory.

#### *Study guidance and feasibility*

The master's programme provides students with intense guidance in their programme. At the beginning of the academic year, all students have an individual introductory meeting with the study advisor. The programme offers guidance through its mentor programme, the internship coordinator and the teaching staff involved in the Academic Development educational line. The panel observed that student guidance and coaching are taken seriously by the programme, and as a result greatly appreciated by students. Students enjoy the attention that is paid to both personal and academic development.

The diverse inflow of students into the programme, with backgrounds such as medicine, bio-medical sciences, physiotherapy, public policy, psychology and sociology, is dealt with quite well. The panel is positive about the application and acceptance process, but advises the programme, for transparency's sake to make its acceptance criteria explicit. The panel sees the potential merits of the planned online module 'Be prepared for vitality and ageing' the programme is developing. This module would test the student's prior knowledge and offer crash courses to fill gaps in the required expertise.

A point of concern for the panel is the large number of students who extend their internship and thereby incur a study delay. It asks the programme to be mindful of this and take a more proactive approach in limiting the internship duration.

#### *Internationalisation*

The teaching language in the programme is English. The programme's argument is that vitality and ageing and ageing populations are international themes. Almost all of the scientific literature in the field is published in English, and the programme employs many international experts and makes frequent use of international guest lecturers. It also wants to prepare its students for international

careers. The panel understands this reasoning and accepts its validity, but also has some reservations. It observes that the programme has succeeded in making its curriculum truly internationally oriented; perspectives on ageing from various cultures and traditions are included, and it has developed a shared vision and strategy on working with an international classroom. The international internships and field-trips to the Max Planck institute in Cologne and the European Parliament in Brussels are further proof of the programme's international orientation. The panel did observe some tension presented by the choice for English as the language of instruction, however.

The first point of tension is that the involvement of the Older Persons Advisory Board is more complex in an English-speaking context; many of the board members do not speak English at a level that allows for easy conversation, especially not on academic topics. Though the programme has recruited some Board members who do speak English and these are generally linked to international students, this language barrier is considered problematic by members of the Board and students alike.

A second point of tension the panel learned about is that many students will end up working in the Dutch context after the programme. To this end, the programme organises a number of fieldtrips to organisations in the Netherlands. The students indicated that during these fieldtrips, they occasionally had to translate presentations to their non-Dutch classmates, as their hosts were unable or unwilling to speak English. The panel considers this an undesirable situation. The students indicated that they had to adjust to writing policy papers and other reports in Dutch again after graduation.

A final point of tension relates to the creation of an international, or mixed, classroom, containing students from different disciplinary backgrounds and different nationalities. The programme actively stimulates exchanges between these students, stating that this helps them to critically reflect on their own culture and experiences, training their skills in critical thinking and evaluation. The panel observed, however, that the programme struggles to achieve the necessary critical mass in terms of international student numbers to realise the full potential of the international classroom. The proportion of international students in cohorts varies between 6% and 25%. The programme management indicated in their conversations with the panel that they work hard to recruit international students, but that many non-EU students simply consider the programme too expensive without a scholarship. There are some scholarships available for LUMC as a whole, but only a few non-EU students can be awarded a Leiden Excellence scholarships (LEXS).

The panel concluded that the programme is currently hampered regarding its international ambitions. It appreciates the attention the programme has paid to its international orientation and sees that the programme has taken up the recommendations of the previous assessment panel in this regard. It considers the choice for English as justifiable, but also sees some undesirable side-effects, which are currently not sufficiently remedied. It therefore recommends that the programme implements the following: Investing in the recruitment of international students. This would involve, in the panel's opinion, making (more) funds available for scholarships to recruit promising students abroad. Doing this should ensure a sufficient number of international students to truly reap the benefits of the international classroom. This would also entail foregoing trips to Dutch organisations that are unable to offer tours and programmes in English, and investing in the Older Persons Advisory Board to make sure it contains more international or English-speaking members.

If the programme is unable to implement these changes, the panel advises the programme to go for the second option of changing the programme's language of instruction to Dutch. This would allow the programme to continue the field trips and the current format for the involvement of the Older Persons Advisory Board in the programme. Due to the diverse nature of the programme's intake of students, it would still be possible to reap the benefits of a 'mixed classroom', but then in the form of disciplinary rather than national backgrounds. This would not mean that the programme loses its international orientation: the panel wholeheartedly agrees with the programme management that vitality and ageing are international themes, and that the academic debate primarily takes place in



English. Switching to Dutch would allow the programme to take up some issues they are currently unable to cover, however, and make more use of the Dutch public debate in teaching, for example.

### **Considerations**

The panel is impressed with the curriculum of the master's programme Vitality and Ageing. Its content is a clear reflection of the programme's specific profile and aims. The panel appreciates the programme's design, with its three educational lines and the content-driven modules structured in a micro-meso-macro manner. It is very positive about the way the programme pays attention to the training of 'soft skills' such as presenting, teamwork and reasoning within the various courses. The aim of offering interdisciplinary teaching is also realised within the programme, and the interdisciplinary course teams are a great asset in this respect.

The internship (often international), conducted within the context of the Science and Career module, is another strong element of the programme. The panel does recommend that the programme offers specific (methodological) support for students conducting their internship in professional organisation, to make sure all students are properly prepared for the research they carry out within the context of the Science and Career module.

The teaching model employed by the programme, the HILL model (High Impact Learning that Lasts), is adequately implemented, and the panel established that it informs day-to-day teaching in the programme. The students appreciate the teaching in the programme, and the panel considers the teaching model to be diverse, stimulating and contemporary.

The involvement of the 'Older Persons Advisory Board' in designing the programme and in educational activities is another strong element that ensures the relevance of the course's topical focus according to the panel. The involvement of this key group of stakeholders is highly appreciated by both students and the group of older persons themselves. The panel does recommend that the programme diversify the group of older individuals with whom the students come into contact.

The quality of the teaching staff in the programme is high. The panel confirmed that there are sufficient numbers to ensure a high standard of education. It concludes that the teaching team is well balanced between senior and early-career teachers. The programme has adequate measures in place to ensure the level of English of the teaching staff is satisfactory. It performs satisfactorily regarding teaching professionalisation (BKO/SKO) as well.

The programme emphasises the students' preparation for a future career after the program through mentoring, orientation visits, skills training sessions and internships. There is a comprehensive system of study guidance in place. The students appreciate that attention is paid not only to academic development but to personal development as well. The panel did observe that many students extend their studies due to the internship. It asks the programme to be mindful of this, and wherever possible communicate the desired length of an internship contract with the organisations where the students carry out their internships.

The teaching language in the programme is English. The panel judges the programme's arguments in favour of using English to be valid. It observed that the programme has succeeded in making its curriculum truly internationally oriented, but also notes some tension in this regard. This tension relates to the involvement of the Older Persons Advisory Board in an English-spoken environment, to the relations with the Dutch professional field, and to the efforts involved in creating an international classroom with limited numbers of international students. For these reasons the panel would like the programme to continue in English and invest considerably in the recruitment of international students. If this is not possible, the programme should change the programme's language of instruction to Dutch to reap the benefits of the immediate environment, while keeping the programme's international orientation.

## Conclusion

*Master's programme Vitality and Ageing*: the panel assesses Standard 2 as 'meets the standard'.

### **Standard 3: Student assessment**

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

## Findings

### *Assessment plan and methods*

The programme's assessment policy is based on the overarching assessment framework of the Leiden University Medical Center. The assessment plan of the master's programme Vitality and Ageing gives a breakdown of the course-specific learning outcomes and assessment types in each individual course, as well as a detailed overview of how each individual course contributes to the achievement of the ILOs. The two guiding principles in the programme's assessment are constructive alignment and the conception of assessment as meaningful learning moments, following the HILL educational model. This last point is realised by frequent assessment moments and by providing extensive feedback. The programme furthermore aims to use multiple sources and forms of assessment, with multiple examiners, and a mix of feedback from each student's peers and tutors. The panel learned, for example, that all papers for content courses are also assessed by the Communication in Science tutor. The programme makes good use of rubrics throughout, in all forms of assessment. The panel is impressed with the programme's assessment plan, considering it detailed, consistent, and transparent for the students.

The panel is impressed with the variety of assessment methods the programme employs. They include policy papers, innovation plans, presentations, debates, essays, video pitches, leadership games and written exams. The panel considers these forms well-chosen and a fitting combination of traditional and modern types of assessment, matching the programme's overarching intended learning outcomes. It is also positive about the implementation of the second guiding principle: assessment as learning. The three educational lines are used to provide the students with continuous feedback on their learning, and help to identify learning goals. Though the panel learned that the rubrics used for assessment are usually complemented by oral feedback, which is commendable, it wants to encourage the programme to also provide narrative feedback when filling out the rubrics. This would make it easier for the students to keep an overview of their areas of improvement. The panel observed that narrative feedback is generally present for lower-scored student work, but it encourages the programme to also give feedback to well-performing students.

The assessment of transferable, or soft, skills has been implemented successfully. The programme's use of innovative assessment methods helps in this regard. In its interview with the panel, the programme management indicated that frequent use is also made of group work, to test the students' team working and cooperation skills. A lot of energy has been put into ensuring each student's individual contributions are properly assessed. The programme now wishes to grade the team work and cooperation as well. The panel is in favour of this idea, stating that it would help the programme check to what extent the students live up to the intended learning outcomes related to teamwork and interpersonal skills (see Appendix 2).

### *Assessment of final works*

The thesis is situated within the Science and Career module and linked to the internships. The grading for this course is based 30% on the internship performance and 70% on the final thesis. These are assessed by both a member of the receiving organisation (provided they have a PhD) and by a member of the Master's Internship Committee. If the supervisor in the receiving organisation does not have a PhD, an additional supervisor from the LUMC is allocated. The programme has a procedure in place to involve a third reader if the external and internal supervisor's grades are too far apart. The Master's Internship Committee also approves the students' internship proposals before they start their internships. The panel considered the assessment of the final works it studied generally



transparent and clear, though it wants to emphasise the importance of written feedback, including for well-performing students. The panel also indicates that students that conduct their research within and outside of academia, received quite similar scores for their final works, though the panel observed that the students in the former category often displayed more advanced research skills than students in the latter. The panel learned that this is partly because the internship itself is also included in the scoring of the thesis. The panel advises the programme to make explicit the shares of theses and internship in the student's scores.

The panel did observe some degree of misalignment between the form of the final paper and the programme's aims. It appreciates that the students have various options for their scientific internships, both in academic settings and within the societal field. This fits the programme's broad focus and its envisaged professional trajectories for graduates, but is also part of the tension the panel observed within the programme and its chosen form of assessment. On the one hand, the programme has an academic focus and wants to train researchers, but it also explicitly specifies a societal orientation and indicates that graduates should not only be able to ask and answer questions related to vitality and ageing, but also implement solutions. In a number of theses the panel studied before the site visit, this final step seemed to be missing. The panel recommends adapting the form of the thesis so that both the academic and the professional aspects are addressed, for instance by including a section on the implications of the research. As indicated in standard 2, the panel is also in favour of more flexibility in the form of the final thesis, and to allow students to write a thesis that has a more policy-oriented approach.

#### *Board of Examiners*

The programme's Board of Examiners consists of three members and is supported by an educational expert and a secretary. The Board's chair is also its external member; its other two members teach in the programme but are not involved in the examinations themselves. If necessary, the Board is supported by ICLON, the Leiden University Graduate School of Teaching.

The Board annually checks the grading of final works, supervises all other assessments before grades are administered, appoints examiners, organises calibration sessions for teaching staff regarding final works, processes student's requests, handles plagiarism and other fraud cases, and keeps an eye on the programme's constructive alignment. The panel established that the Board is sufficiently independent. In its interview with the Board, it ascertained that the Board is knowledgeable about the daily practices and affairs in the programme, and adjusts its work to the programme's culture. It was impressed with the Board's professionalism and thoroughness. It also learned that the Board would like an additional member, to divide up responsibilities better and to ensure that all members have sufficient time for their tasks in addition to their regular teaching and research responsibilities. The panel understands and endorses this wish.

#### **Considerations**

The panel confirmed that the master's programme Vitality and Ageing has a good assessment system that fits with its educational philosophy. The assessment plan is well-designed, properly implemented and contributes to the validity, reliability and transparency of assessment in the programme. The panel is positive about the implementation of its two main principles, namely constructive alignment and the conception of assessment as meaningful learning moments

The panel is appreciative of the often innovative forms of assessment and concluded that the programme's assessment forms are an excellent fit to its intended learning outcomes and overarching profile. The students are trained in and assessed on relevant skills, and they often receive valuable feedback from their tutors. The panel wants to encourage the programme to provide students who produce good work with points for improvement in the future and not just provide feedback to student work that is on the lower end of the grading curve. It commends the programme's plan to explicitly assess each student's cooperation skills in group work.

Regarding the assessment of the final work, the panel would like to see the programme revise the assessment form of the final work to include policy-oriented aspects, for example, by including a section on implications or by allowing students more flexibility in the form of their final work.

The panel is very impressed by the work and professionalism of the Board of Examiners. The Board has a clear view of its tasks and responsibilities, carries out its tasks in a proactive manner, and is in control of safeguarding assessment quality. It backs the Board's wish for an extra member, and recommends that the programme appoints one.

### **Conclusion**

*Master's programme Vitality and Ageing:* the panel assesses Standard 3 as 'meets the standard'.

### **Standard 4: Achieved learning outcomes**

The programme demonstrates that the intended learning outcomes are achieved.

### **Findings**

#### *Theses*

Prior to the site visit, the panel studied a selection of 15 theses and their accompanying assessment forms. In general, the theses demonstrated that the graduates meet the programme's intended learning outcomes. The quality of their final projects ranged from sufficient to high. The panel noted that the variety in topics reflects the breadth of the programme, with the caveat discussed above that the students who wrote their final work based on a societal internship might benefit from preparatory methodological training prior to embarking on their internships.

#### *Alumni*

The panel confirmed that graduates of the programme do well in the labour market in this field. A recent alumni survey indicated that 31% of graduates continue to study, often in the medical field. Of the graduates who enter the labour market (69%), the largest shares go into the field of research (36%), policy (15%) or a combination of research, policy and education (21%). A large proportion of graduates found their jobs via the master's programme, either through the internship or using the network built during the master's programme. According to the panel, this speaks of the extensive attention the programme pays to professional development and labour market orientation. This finding was corroborated in the interview the panel had with the programme's alumni, who indicated that they felt prepared to enter the labour market, and said they all found jobs rather quickly. The students and alumni did indicate that they would have liked to have more guest lecturers from the societal field, so they can build up these aspects of their network. The panel supports this wish.

### **Considerations**

The panel concluded that graduates of the programme achieve the intended learning outcomes. The quality of their final projects ranged from sufficient to high. The panel established that graduates of the programme generally find their way to relevant and diverse professional positions that match their degree level. The alumni are positive about how the programme prepared them for the professional field. The panel was pleased to learn that many of the programme's alumni find their jobs through the programme. Following the students' comments, it recommends including more practitioners in the programme's guest lectures, as this could help strengthen the students' professional networks.

### **Conclusion**

*Master's programme Vitality and Ageing:* the panel assesses Standard 4 as 'meets the standard'.



## GENERAL CONCLUSION

The panel's judgement on standards 1, 2, 3 and 4 for the master's programme Vitality and Ageing of Leiden University is 'meets the standard'. Therefore, according to the rules of the Accreditation Organisation of the Netherlands and Flanders, the general and final judgement is 'positive'.

### **Conclusion**

The panel assesses the *Master's programme Vitality and Ageing* as 'positive'.

## APPENDICES



## APPENDIX 1: DOMAIN-SPECIFIC FRAMEWORK OF REFERENCE

The Vitality and Ageing master's programme is an unique, theme specific, higher education programme in the Netherlands. From the focus of vitality and ageing, the programme combines a broad spectrum of academic disciplines, including biomedical science, medical science, healthcare science and management, social science and behavioural sciences, and governance and global affairs. In the programme, this interdisciplinary content is combined with training of dedicated transferable academic skills. By applying this interdisciplinary knowledge with dedicated transferable academic skills, young Vitality and Ageing professionals are ready to formulate innovative solutions crossing boundaries to enhance and improve the vitality of older people.

For accreditation purposes, Vitality and Ageing forms the visitation cluster Health Sciences, together with two masters' programmes Epidemiology from the Free University Amsterdam and Health Sciences from the Erasmus University Rotterdam. All three masters are thematic, interdisciplinary and health-related.

## APPENDIX 2: INTENDED LEARNING OUTCOMES

### Master's programme Vitality and Ageing

#### *a Knowledge and understanding*

- K1. has subject specific knowledge and understanding of biological mechanisms of ageing;
- K2. has subject specific knowledge and understanding of somatic, psychological, functional and social mechanisms in older individuals, including healthy ageing and vitality;
- K3. has subject-specific knowledge and understanding of the organisation of an ageing society: demography, healthcare financing and structures, prevention, models of care, international differences, health governance;
- K4. has state-of-the-art knowledge and understanding of research, study designs and evidence based decision making;
- K5. has the current knowledge and understanding of interdisciplinary collaboration, leadership, management and innovation.

#### *b Applying knowledge and understanding*

- A1. is able to critically analyse the challenges, shortcomings and opportunities in the fields of biology of vitality and ageing, older individuals and organisation of an ageing society;
- A2. is able to conduct a scientific analysis of original data or existing literature in the field of vitality and ageing;
- A3. is able to tackle complex problems in the field of vitality and ageing by designing innovative solutions;
- A4. is able to develop well-founded policy recommendations regarding the organisation of an ageing society.

#### *c Making judgements*

- J1. is able to base his or her decisions on the available scientific evidence and analyses of international practices, taking ethical and societal perspectives into account;
- J2. values the perspectives of older people and is able to revise prior judgments accordingly.

#### *d Communication*

- C1. is able to communicate or debate scientific or societal findings, conclusions from his/her own research, as well as the knowledge, motivation and considerations of underlying topics clearly and unambiguously to a specialist and non-specialist audience in English.

#### *e Learning skills*

- L1. has an academic level of thinking and operating within his/her field and is able and willing to further improve this level;
- L2. is able to use principles of leadership and interpersonal skills in a (interdisciplinary) team environment.



## APPENDIX 4: PROGRAMME OF THE SITE VISIT

### Programma 11 maart 2020

08.50	09.00	Ontvangst door Decaan, Directeur DOO, Portefeuillehouder onderwijs div 2, management
09.00	09.45	Gesprek met management
09.45	10.30	Gesprek met studenten (voertaal Engels)
10.30	11.00	Evaluatie en pauze
11.00	11.30	Gesprek met ouderen
11.30	12.15	Gesprek kerndocenten
12.15	13.00	Lunch overleg en inzien documenten
13.00	13.30	OLC
13.30	14.15	Gesprek met de examencommissie en onderwijskundige
14.15	15.00	Gesprek met alumni (voertaal engels)
15.00	15.30	Inloopspreekuur Intermezzo (facultatief als geen inlopers)
15.30	16.15	Vragen formuleren voor management
16.15	16.45	Afsluitend gesprek met management
16.45	17.30	Beraad commissie
17.30	17.45	Eerste terugkoppeling resultaten visitatie

## APPENDIX 5: THESES AND DOCUMENTS STUDIED BY THE PANEL

Prior to the site visit, the panel studied 15 theses of the master's programme Vitality and Ageing. Information on the selected theses is available from QANU upon request.

During the site visit, the panel studied, among other things, the following documents (partly as hard copies, partly via the institute's electronic learning environment):

- Module books:
  - Future Perspectives
  - Biology of Vitality and Ageing
  - Older Individual (and reader)
  - Organisation of an Ageing Society
  - Science and Career
  - Academic Development
  - Communication in Science
  - Research and Evidence
- Masters keuzegids 2019
- LUMC strategie 2018-2023: Grensverleggend > beter worden
- Flyer: Vision on Teaching & Learning @ LeidenUniversity
- Jaarverslag examencommissie 2017-2018
- Verslagen examencommissie (20-09-2019, 18-10-2020, 06-12-2019)
- Verslagen opleidingscommissie (17-09-2019, 29-10-2019, 18-11-2019, 17-12-2019, 22-01-2020,
- Rules and regulations of the Board of Examiners 2019 -2020
- Course and Examination Regulations (2019-2020)
- Assessment Plan 2019-2020
- Assessment Policy Vitality and Ageing
- Assessment Plans for:
  - Future perspectives
  - Biology of Vitality and Ageing
  - Older Individual
  - Organisation of an Ageing Society
  - Science and Career
  - Academic Development
  - Communication in Science
  - Research and Evidence
- Assessment Plan Biology of Vitality and Ageing and related parts of Communication in Science and Research in Evidence
- Assesment Plan Organisation of the Ageing Society and related parts of Communication in Science and Academic Development
- Yearbooks (16-17, 17-18, 18-19)
- Fotoboek ouderen
- Wervingsbrochure Master Programme