

**MASTER'S PROGRAMMES**

**HEALTH SCIENCES**

FACULTY OF HEALTH, MEDICINE AND LIFE SCIENCES

**MAASTRICHT UNIVERSITY**

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This report was finalized on 28-09-2018



# REPORT ON THE MASTER'S PROGRAMMES EPIDEMIOLOGY; HEALTHCARE POLICY, INNOVATION AND MANAGEMENT; HEALTH EDUCATION AND PROMOTION; AND WORK, HEALTH AND CAREER OF MAASTRICHT UNIVERSITY

This report takes the NVAO's Assessment Framework for Limited Programme Assessments as a starting point (September 2016).

## ADMINISTRATIVE DATA REGARDING THE PROGRAMMES

### Master's programme Epidemiology

Name of the programme:	Epidemiology
CROHO number:	60011
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	-
Location(s):	Maastricht
Mode(s) of study:	full time, part time
Language of instruction:	English
Expiration of accreditation:	03/07/2019

### Master's programme Healthcare Policy, Innovation and Management

Name of the programme:	Healthcare Policy, Innovation and Management
CROHO number:	60460
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	-
Location(s):	Maastricht
Mode(s) of study:	full time, part time
Language of instruction:	English
Expiration of accreditation:	03/07/2019

### Master's programme Health Education and Promotion

Name of the programme:	Health Education and Promotion
CROHO number:	60461
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	-
Location(s):	Maastricht
Mode(s) of study:	full time, part time
Language of instruction:	English
Expiration of accreditation:	03/07/2019

### Master's programme Work, Health and Career

Name of the programme:	Work, Health and Career
CROHO number:	60007
Level of the programme:	master's

Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	-
Location(s):	Maastricht
Mode(s) of study:	full time, part time
Language of instruction:	English
Expiration of accreditation:	03/07/2019

The visit of the assessment panel Health Sciences to the Faculty of Health, Medicine and Life Sciences of Maastricht University took place on 23-25 April 2018.

## ADMINISTRATIVE DATA REGARDING THE INSTITUTION

Name of the institution:	Maastricht 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 18 December 2017. The panel that assessed the master's programmes Epidemiology; Healthcare Policy, Innovation and Management; Health Education and Promotion; and Work, Health and Career consisted of:

- Em. prof. dr. J. (Janke) Cohen-Schotanus, emeritus professor Education & Educational Research in the medical sciences at the University of Groningen [chair];
- Prof. dr. J. (Koos) van der Velden, professor in Public Health at Radboud Universiteit Nijmegen [vice chair];
- Dr. M. (Marinus) Verhagen, assistant professor in Human Resource Studies at Tilburg University;
- Prof. dr. W. (Walter) Sermeus, professor in Health Management & Policy at the KU Leuven;
- Dr. ir. C.D. (Kees) de Gooijer, director Topconsortium Knowledge and Innovation Agri&Food;
- A.(Anneke) Bulten MSc, master's student Nutrition and Health at Wageningen University & Research [student member].

The panel was supported by dr. J. (Joke) Corporaal, who acted as secretary.

## WORKING METHOD OF THE ASSESSMENT PANEL

The site visit to the master's programmes Epidemiology; Healthcare Policy, Innovation and Management; Health Education and Promotion; Work, Health and Career and Health Food Innovation Management at Maastricht University is part of the cluster assessment Health Sciences in which seven universities participate: Twente University, Utrecht University, University of Groningen, Maastricht University, Erasmus University Rotterdam, Wageningen University and Research and Vrije Universiteit Amsterdam.

The chair of the assessment panel is Prof. dr. J. (Janke) Cohen-Schotanus, who was present during six of the seven site visits (TU, UU, MU, EUR, WUR and VU). Apart from Prof. dr. Cohen-Schotanus, the panel consisted of Prof. dr. K. (Koos) van der Velden (vice-chair), Dr. M. (Marinus) Verhagen, Prof. dr. W. (Walter) Sermeus, Dr. ir. C.D. (Kees) de Gooijer and A. (Anneke) Bulten MSc (student-member). The chair, vice-chair and Marinus Verhagen together safeguarded the consistency of the assessments. The project manager, Dr. A. (Anna) Sparreboom, acted as an independent observer.

Dr. A. (Anna) Sparreboom acted as QANU project manager for the Health Sciences cluster. Dr. F. (Floor) Meijer, Dr. J. (Joke) Corporaal, Dr. M. (Meg) Van Bogaert and Dr. A. (Anna) Sparreboom, who are all certified by NVAO, acted as independent secretaries.

#### *Preparation*

In preparation for the assessment, the management of the master's programmes provided self-evaluation reports (SER) with relevant appendices. The secretary checked the reports for completeness of information before sending it to the panel members, who studied all material in preparation for the site visit. In addition, the panel studied several theses with their assessment forms to assess the final achievement level and to review assessment practices. Because of privacy regulations, the list of studied theses can be provided by the project manager upon request.

The panel studied a selection of 15 theses for each programme. This selection was prepared by the secretary and checked by the panel chair. It was based on the following considerations: a diversity of grades (covering the full range of marks given including high scores, middle scores and scores at the pass/fail mark), a diversity of examiners to assess the alignment of assessment practices, and a diversity of topics and subjects to assess the performance of students and the full scope of the master's program.

The panel discussed its initial findings based on the SERs and studied material by email, followed by a preparatory panel meeting on 23 April 2018. Prior to the site visit, the panel asked the programmes to select representative interview partners.

#### *Site visit*

The site visit to Maastricht University took place from 23-25 April 2018, assisted by a NVAO-certified secretary. All panel members were present during the three-day site visit. During the site visit, the panel met with the programme management, faculty members, current students, alumni, members of the Board of Examiners and representatives of the educational committee. It provided students and lecturers with an opportunity to meet informally during a consultation hour outside the set interviews. No requests were received for this option. It used the final part of the visit for an internal meeting to discuss its findings. The visit was concluded with a verbal presentation of the preliminary impressions and general observations by the chair of the panel. This presentation was open to all. For the full schedule of the site visit, see Appendix 4.

The panel also examined relevant study material and additional material during the site visit. An overview of all documents reviewed by the panel is included in Appendix 5.

#### *Report*

Based on the panel's findings, a draft report was prepared by the secretary. All panel members commented upon the draft report, and their comments and additions were implemented accordingly. The draft report was approved by the panel chair and sent to those responsible for the programmes at Maastricht University for the rebuttal procedure. The programme checked the draft report for factual irregularities. Suggestions based on this rebuttal procedure were discussed by the secretary and chair and, where necessary, other panel members before finalizing the report.

#### *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 both the standards and the programme as a whole.

#### **Generic quality**

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

**Unsatisfactory**

The programme does not meet the generic quality standard and shows shortcomings with respect to multiple aspects of the standard.

**Satisfactory**

The programme meets the generic quality standard across its entire spectrum.

**Good**

The programme systematically surpasses the generic quality standard.

**Excellent**

The programme systematically well surpasses the generic quality standard and is regarded as an international example.



## SUMMARY JUDGEMENT

### **Master's programme Epidemiology**

The master's programme Epidemiology (EPI) sets out to cover all core aspects and techniques of epidemiology, with a focus on fundamental theoretical principles and methods. The panel studied the main goal and 25 intended learning outcomes (ILOs) of the EPI programme and concluded that they have been formulated concisely, with a lot of attention being paid to the research field for which it prepares graduates. As a result of this alignment process, the ILOs clearly meet national and international requirements and correctly reflect the academic master's level of the programme.

The panel concludes that the basic elements of epidemiological research are firmly embedded in the programme. It was pleased to see that the programme management is constantly improving the curriculum and that it takes student evaluations to heart. Each course has clearly defined learning objectives that tie in well with the ILOs, and courses have a logical sequence. Molecular epidemiology and nutritional epidemiology seem to feature most prominently in the programme. 'Internationalisation' is not mentioned in the ILOs. The panel thinks that the international aspect of the programme could be made more explicit and advises the programme to set specific goals with regard to internationalisation.

The programme uses a wide range of educational formats; the underlying didactic concept is problem-based learning. The panel concludes that, in general, the educational formats tie in well with the ILOs of the courses. It also believes that the didactic approach has been successfully embedded in the programme, with a lot of attention being paid to professional and academic skills.

A significant number of students come from abroad or from a university of applied sciences. There is no pre-master programme. As a result, students master different skills and/or have a different educational background at the start of the programme. In the panel's opinion, not only the students who are lacking certain skills (most notably academic writing skills or statistical knowledge) but also excellent students can be hampered in their progress when the entry level differs greatly. The panel strongly recommends reconsidering whether a GRE test is a sufficient way of selecting students for the programme.

All teachers hold a PhD degree and have a University Teaching Qualification. In 2015/2016, the core staff of the EPI programme consisted of eight members; in 2017/2018, the number of staff has been increased. The panel is satisfied with the quality of the teaching. The lecturers have strong links to research, and are considered experts in their field. During the site visit, the panel and the programme management talked about the workload of staff members, which is considered to be high. The panel strongly advises the programme to take complaints about a high workload seriously.

The programme has a good assessment system in place, with careful procedures that are constantly being tightened up. Course descriptions give students a clear idea of how assessment will take place. The programme uses a variety of assessment forms, with a good mix of individual and group assessments. The transparency of exam questions is checked before the exams are held. The panel is enthusiastic about this practice, and it applauds the support available to examiners when composing and grading exams and writing assignments. The assessment procedure for the master's thesis is clear, and the panel is pleased to see that the programme stresses the independence of both thesis assessors. It does recommend revising the assessment form so students and assessors gain more insight into how the final grade was established. It praises the active role that the Board of Examiners plays in the programmes in the Health domain. In its view, the master's programmes are ahead of national developments in terms of assessment.

After studying a sample of theses, success rates and data regarding employability, the panel concludes that students achieve the ILOs. The theses testify that students are able to independently design, conduct and evaluate a research project. The success rates are satisfactory. Master's



graduates have no difficulty in finding a job after graduation. Most EPI graduates pursue a career in research. The panel thinks this is in line with the aims and orientation of the programme.

### **Master's programme Healthcare Policy, Innovation and Management**

The panel concludes that the Healthcare Policy, Innovation and Management (HPIM) programme has a clear aim: to educate future managers, policy makers, consultants, researchers and staff employees in healthcare as professionals who are able to influence the future direction of healthcare and to transform current systems. Two key words in this programme are 'research-driven' and 'innovation'. The panel considers the research-driven character of the programme to be a strong hallmark, like the double degree programme offered together with the University of Cologne (Germany). It believes that this double degree programme ought to be mentioned in the profile of the programme. From speaking with the students, it concludes that they very much appreciate the overall health system approach that the programme offers. It shares this view and sees it as another strength of the programme. In its view, the ILOs have been formulated too broadly. It strongly advises the programme to reformulate them so that they reflect the learning objectives of the different courses in a more precise way, as well as the overall aim of the programme.

The panel considers the HPIM programme to be very transparent and well organised. Each course has a course manual with clear course objectives. The order of courses is well thought out and logical. The panel liked the fact that students can opt for a short internship or study abroad, and that there are guest lectures given by researchers from other universities and practitioners from the professional field. However, it felt that the link between the courses and the professional field could be improved further still. It also thinks that the international aspect of the programme could be made more explicit and advises the programme to set specific goals with regard to internationalisation.

The programme uses a wide range of educational formats; the underlying didactic concept is problem-based learning. The panel concludes that, in general, the educational formats tie in well with the intended learning outcomes of the courses. It also believes that the educational approach has been successfully embedded in the programme, with a lot of attention being paid to professional and academic skills.

A significant number of students come from abroad or from a university of applied sciences. There is no pre-master programme. As a result, students master different skills and/or have a different educational background at the start of the programme. In the panel's opinion, not only the students who are lacking certain skills (most notably academic writing skills or statistical knowledge) but also excellent students can be hampered in their progress when the entry level differs greatly. It strongly recommends reconsidering whether a GRE test is a sufficient way of selecting students for the programme.

The majority of teachers delivering the programme hold a PhD degree and a University Teaching Qualification. In 2015/2016, the core staff of the programme consisted of 27 members. The panel is satisfied with the quality of the teaching. The lecturers have strong links to research as well as the professional practice. This safeguards close ties with both academia and the job market. The panel was also impressed with the educational support that staff members get from the Department of Educational Development. During the site visit, the panel and the programme management talked about the workload of staff members, which is considered to be high. It strongly advises the programme to take complaints about a high workload seriously.

The programme has a good assessment system in place, with careful procedures that are constantly being tightened up. Course descriptions give students a clear idea of how assessment will take place. The programme uses a variety of assessment forms, with a good mix of individual and group assessments. The transparency of exam questions is checked before the exams are held. The panel is enthusiastic about this practice, and it applauds the support available to examiners when composing and grading exams and writing assignments. The assessment procedure for the master's thesis is clear, and the panel is pleased to see that the programme stresses the independence of

both thesis assessors. It recommends changing the assessment form so students and assessors gain more insight into how the final grade was established. It praises the active role that the Board of Examiners plays in the programmes in the Health domain. In its view, the master's programmes are ahead of national developments in terms of assessment.

After studying a sample of theses, success rates and data regarding employability, the panel concludes that students achieve the ILOs. The theses testify that students are able to independently design, conduct and evaluate a research project. The success rates are satisfactory. Master's graduates have no difficulty in finding a job after graduation. Most HPIM graduates take up managerial, advisory, consultancy or educational roles in private and public healthcare organisations. The panel feels this is in line with the aims and orientation of the programme.

### **Master's programme Health Education and Promotion**

The master's programme Health Education and Promotion (HEP) combines the use of theory and evidence from a variety of fields (psychology, sociology, communication and management sciences) with a participatory action approach. The panel concludes that the programme has phrased its main goal and learning objectives in a clear manner. The programme has a strong practice orientation, and its 27 ILOs are in line with national and international requirements. The ILOs adequately reflect the academic orientation of the programme (master's level). The panel shares the programme's view that the 2013 IUHPE European Health Promotion Accreditation can be seen as an indication that the programme meets specific competency-based criteria and professional standards as endorsed at a national and European level.

From studying the programme as a whole and a few courses in more detail, the panel concludes that this programme has been structured well. Course manuals give students a clear idea of the learning objectives. Courses build logically on each other, and the programme as a whole ties in well with the ILOs. The panel liked the guest lectures given by researchers from other universities and practitioners from the professional field. Students carry out a broad range of assignments, which gives them the opportunity to develop the skills and competencies needed after graduation, according to the panel. The international aspect of the programme could be made more explicit. The panel advises the programme to set specific goals with regard to internationalisation.

The programme uses a wide range of educational formats; the underlying didactic concept is problem-based learning. The panel concludes that, in general, the educational formats tie in well with the ILOs of the courses. It also believes that the didactic approach has been successfully embedded in the programme, with a lot of attention being paid to professional and academic skills.

A significant number of students come from abroad or from a university of applied sciences. There is no pre-master programme. As a result, students master different skills and/or have a different educational background at the start of the programme. In the panel's view, not only the students who are lacking certain skills (most notably academic writing skills or statistical knowledge) but also excellent students can be hampered in their progress when the entry level differs greatly. It strongly recommends reconsidering whether a GRE test is a sufficient way of selecting students for the programme.

The majority of teachers delivering the programme hold a PhD degree and a University Teaching Qualification. In 2015/2016, the core staff of the programme consisted of 22 members. The panel is satisfied with the quality of the teaching. The lecturers have strong links to research as well as the professional practice. This safeguards close ties to both academia and the job market. The panel was also impressed with the educational support that staff members get from the Department of Educational Development. During the site visit, the panel and the programme management talked about the workload of staff members, which is considered to be high. The panel strongly advises the programme to take complaints about a high workload seriously.

The programme has a good assessment system in place, with careful procedures that are constantly being tightened up. Course descriptions give students a clear idea of how assessment will take place. The programme uses a variety of assessment forms, with a good mix of individual and group assessments. The transparency of exam questions is checked before the exams are held. The panel is enthusiastic about this practice, and it applauds the support available to examiners when composing and grading exams and writing assignments. The assessment procedure for the master's thesis is clear, and the panel is pleased to see that the programme stresses the independence of both thesis assessors. It recommends revising the assessment form so students and assessors gain more insight into how the final grade was established. It praises the active role that the Board of Examiners plays in the programmes in the Health domain. In its view, the master's programmes are ahead of national developments in terms of assessment.

After studying a sample of theses, success rates and data regarding employability, the panel concludes that students achieve the ILOs. The theses testify that students are able to independently design, conduct and evaluate a research project. The success rates are satisfactory. Master's graduates have no difficulty in finding a job after graduation. Most HEP graduates take up managerial, advisory, consultancy or educational roles in private and public healthcare organisations. The panel feels this is in line with the aims and orientation of the programme.

### **Master's programme Work, Health and Career**

Using a multidisciplinary approach to labour participation, this programme is based on the increased need for occupational health professionals at an academic master's level. Students are trained to analyse problems concerning labour participation, design and apply interventions, and evaluate the effectiveness of these interventions. The panel concludes that the programme is in tune with recent societal developments, in which municipalities have been given new responsibilities and there are considerable problems with regard to labour participation. The programme has a clear goal and the underlying concepts are valid and up-to-date. The panel feels that the connection with the working field (occupational physicians, doctors appointed by insurance companies and other occupational health professionals) and target group ('workers') could be made more explicit. It considers the 31 ILOs adequately formulated and convincingly geared towards an academic master's level.

The panel concludes that the Work, Health and Career (WHC) programme deals with themes that are both interesting and relevant for occupational health professionals at the master's level. The training sessions teach the students how to use relevant tools, and cases are dealt with at several levels: that of the individual, the organisation and policy making (national). The panel liked the fact that there are guest lectures given by researchers from other universities and practitioners from the professional field. Each course has clearly defined learning objectives that tie in well with the ILOs. The courses are structured well and use a good mix of 'old' and recent literature. However, the panel also felt that, for two of the courses it studied in more detail, the concluding exams could have been more challenging. Also, the programme as a whole could pay more attention to mental health issues and be more explicit about its specific goals regarding internationalisation.

The programme uses a wide range of educational formats; the underlying didactic concept is problem-based learning. The panel concludes that, in general, the didactic formats tie in well with the ILOs of the courses. It also believes that the educational approach has been successfully embedded in the programme, with a lot of attention being paid to professional and academic skills.

A significant number of students come from abroad or from a university of applied sciences. There is no pre-master programme. As a result, students master different skills and/or have a different educational background at the start of the programme. In the panel's view, not only the students who are lacking certain skills (most notably academic writing skills or statistical knowledge) but also excellent students can be hampered in their progress when the entry level differs greatly. The panel strongly recommends reconsidering whether a GRE test is a sufficient way of selecting students for the programme.

The majority of teachers delivering the programme have a PhD degree and a University Teaching Qualification. In 2015/2016, the core staff of the programme consisted of eight members. The panel is satisfied with the quality of the teaching. The lecturers have strong links to research as well as the professional practice. This safeguards close ties with both research and the job market. The panel was also impressed with the educational support that staff members get from the Department of Educational Development. During the site visit, the panel and the programme management talked about the workload of staff members, which is considered to be high. The panel strongly advises the programme to take complaints about a high workload seriously.

The programme has a good assessment system in place, with careful procedures that are constantly being tightened up. Course descriptions give students a clear idea of how assessment will take place. The programme uses a variety of assessment forms, with a good mix of individual and group assessments. The transparency of exam questions is checked before the exams are held. The panel is enthusiastic about this practice, and it applauds the support available to examiners when composing and grading exams and writing assignments. The assessment procedure for the master's thesis is clear, and the panel is pleased to see that the programme stresses the independence of both thesis assessors. It recommends changing the assessment form so students and assessors gain more insight into how the final grade was established. It praises the active role that the Board of Examiners plays in the programmes in the Health domain. In the panel's view, the master's programmes are ahead of national developments in terms of assessment.

After studying a sample of theses, success rates and data regarding employability, the panel concludes that students achieve the ILOs. The theses testify that students are able to independently design, conduct and evaluate a research project. The success rates are satisfactory. Master's graduates have no difficulty in finding a job after graduation. Most WHC graduates take up managerial, advisory, consultancy or educational roles in private and public healthcare organisations. The panel feels this is in line with the aims and orientation of the programme.

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

*Master's programme Epidemiology*

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	satisfactory
Standard 3: Assessment	good
Standard 4: Achieved learning outcomes	satisfactory
General conclusion	satisfactory

*Master's programme Healthcare Policy, Innovation and Management*

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	satisfactory
Standard 3: Assessment	good
Standard 4: Achieved learning outcomes	satisfactory
General conclusion	satisfactory

*Master's programme Health Education and Promotion*

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	satisfactory
Standard 3: Assessment	good
Standard 4: Achieved learning outcomes	satisfactory
General conclusion	satisfactory

*Master's programme Work, Health and Career*

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	satisfactory
Standard 3: Assessment	good
Standard 4: Achieved learning outcomes	satisfactory
General conclusion	satisfactory

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

Date: 28-09-2018



Prof. dr. J. (Janke) Cohen-Schotanus



Dr. J. (Joke) Corporaal



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

## Organisational embedding

Maastricht University master's programmes Epidemiology (EPI); Healthcare Policy, Innovation and Management (HPIM); Health Education and Promotion (HEP); and Work, Health and Career (WHC) are part of the Health domain of the Faculty of Health, Medicine and Life Sciences (FHML). The Health domain consists of eleven degree programmes: two bachelor's and nine master's degree programmes, with the same management team, educational committee ('Onderwijscommissie', OC) and Board of Examination ('BoE-H').

### 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.

#### Explanation:

The intended learning outcomes demonstrably describe the level of the programme (Associate Degree, Bachelor's, or Master's) as defined in the Dutch qualifications framework, as well as its orientation (professional or academic). In addition, they tie in with the regional, national or international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the programme. Insofar as is applicable, the intended learning outcomes are in accordance with relevant legislation and regulations.

## Findings

### *Profile and objectives*

#### *Master's programme Epidemiology*

The master's programme Epidemiology (EPI) takes a comprehensive and general orientation to epidemiology as its starting point. It sets out to cover all core aspects and techniques of epidemiology, with the focus placed on fundamental theoretical principles and methods rather than applied epidemiology. The intention of the programme is described in the self-assessment report as 'to ensure that graduates are qualified to critically assess, design, conduct and report on epidemiological research in public and patient-bound settings'.

The programme has recently revised its intended learning outcomes (ILOs) in line with the latest Epidemiologist-A requirements. The ILOs are grouped around the Dublin Descriptors. The programme has also based the ILOs on the domain-specific reference framework for Health Sciences, after consulting other epidemiology master's programmes in the Netherlands, the Dutch and Flemish epidemiological community (Werkgroep Epidemiologisch Onderzoek Nederland), and external contacts (institutions such as the Municipal Health Services).

The panel studied the main goal and 25 ILOs of the programme and concluded that they have been formulated concisely. It noted that the programme has taken care to align the ILOs with the research field for which it prepares graduates. As a result, the ILOs match national and international requirements and correctly reflect the academic master's level of the programme. The panel was pleased to learn that the programme appreciates the importance of recognition by the Netherlands Epidemiology Society, the Vereniging voor Epidemiologie (VvE).

#### *Master's programme Healthcare Policy, Innovation and Management*

The overall aim of the master's programme Healthcare Policy, Innovation and Management (hereafter HPIM) is to educate future managers, policy makers, consultants, researchers and staff employees as professionals who are able to influence the future direction of healthcare and to transform current



systems. Two key words in this programme are 'research-driven' and 'innovation'. In line with the OECD 2005 guideline, the latter is broadly defined as 'the implementation of a new or significantly improved product (good or service), process or method'.

The programme has based its ILOs on national and international frameworks and profiles, such as the domain-specific referential framework, international competency profiles, regional and international organisations and research institutes (including applied research). This has resulted in a set of 11 ILOs, grouped around the Dublin Descriptors.

The panel concludes that the HPIM programme has a clear aim: to train students for new, exciting and important positions in health care. It sees the research-driven character of the programme (most visible in its affiliation with the Care and Public Health Research Institute, CAPHRI) as a strong hallmark, like the double degree option offered in cooperation with the University of Cologne (Germany). The panel believes that this cooperation ought to be mentioned in the programme's profile. From speaking with the students, it concludes that they greatly appreciate the overall health system approach that the programme offers. It shares this view and sees it as another strength of the programme.

In the panel's view, the ILOs have been formulated too broadly. For instance, ILO 9 states that students are able 'to work in a collaborative setting on real-life cases in healthcare'. As a result, they do not clearly reflect the particular objectives of this master's programme. The matrix that links the ILOs to the courses illustrates this; nearly all ILOs feature in all courses. During the site visit, the panel shared its concern about the ILOs with the programme management. It was pleased that the programme management could understand why the ILOs need to reflect the learning objectives of the different courses in a more precise way, as well as the overall aim of the programme. It urges the programme to revise the ILOs accordingly.

#### *Master's programme Health Education and Promotion*

The master's programme Health Education and Promotion (HEP) combines the use of theory and evidence from a variety of fields (psychology, sociology, communication and management sciences) with a participatory action approach. It is both research-driven and practice-oriented. Staff members of this and the WHC programme (see below) participate in the CAPHRI and NUTRIM research schools – Nutrition and Translational Research in Metabolism. Students are trained to provide people with a better understanding of health issues (health education) and to help individuals increasing control over and improving their health (health promotion). The general aim of the programme is 'to provide students with cutting-edge knowledge, academic insights and skills related to the multidisciplinary field of health education and promotion'. The ILOs have been based on the domain-specific reference framework.

The panel studied the main goal and learning objectives of the programme and concluded that they have been formulated clearly. In its view, this academic master's programme has a clear practice orientation, and its 27 ILOs are in line with national and international requirements. The ILOs adequately reflect the programme's academic orientation (master's level). The panel shares the programme's view that the 2013 IUHPE European Health Promotion Accreditation can be seen as an indication that the programme meets specified competency-based criteria and professional standards as endorsed at a national and European level.

#### *Master's programme Work, Health and Career*

The master's programme Work, Health and Career (WHC) is offered in close cooperation with the HEP programme (see section 2.1). Using a multidisciplinary approach of labour participation, the programme is based on the increased need for occupational health professionals at an academic master's level. It is based on three disciplines: Occupational Health, Organizational Science, and Health and Promotion. The overall aim is to deliver graduates who 'are able to weigh up the interests of workers, families, companies and policy makers, and to develop, implement and evaluate cutting-edge effective interventions, strategies and policies to promote sustainable working lives'. Students



are trained to analyse problems concerning labour participation, design and apply interventions, and evaluate the effectiveness of those interventions. An important conceptual backbone of the WHC programme is the International Classification of Functioning, Disability and Health (ICF), a classification system developed by the World Health Organization, which can be used to describe human functioning and health in various domains and during different life stages.

During the site visit, the panel asked the programme management to elaborate on the programme's relation to the HEP programme and on the word 'career' in the programme title. The programme management explained that this programme focuses on labour participation and sees health-related behaviour as one of the determinants of labour participation. The word 'career' refers to workers' problems at different stages of their career.

The panel concludes that the WHC programme is in tune with recent societal developments, in which municipalities have been given new responsibilities and there are considerable problems with regard to labour participation. These developments call for highly educated occupational health professionals who are trained to adopt a multi-level approach and are able to provide solutions. The programme has a clear goal and the underlying concepts are valid and up-to-date. However, the panel feels that the connection with the working field (occupational physicians, doctors appointed by insurance companies and other occupational health professionals) and target group ('workers') could be made more explicit. It considers the 31 ILOs adequately formulated and convincingly geared towards an academic master's level.

## **Considerations**

### *Master's programme Epidemiology*

The panel studied the main goal and 25 ILOs of the EPI programme and concluded that they have been formulated concisely. It noted that the programme has taken care to align the ILOs with the research field for which it prepares graduates. The ILOs match national and international requirements and correctly reflect the academic master's level of the programme. The panel was pleased to learn that the programme appreciates the importance of recognition by the Netherlands Epidemiology Society, the Vereniging voor Epidemiologie (VvE).

### *Master's programme Healthcare Policy, Innovation and Management*

The panel concludes that the HPIM programme has a clear aim: to train students for new, exciting and important positions in health care. It notes the research-driven character of the programme (most visible in its affiliation with the Care and Public Health Research Institute, CAPHRI) as a strong hallmark, like the double degree option offered in cooperation with the University of Cologne (Germany). It believes that this cooperation ought to be mentioned in the programme's profile. From speaking with the students, it concludes that they greatly appreciate the overall health system approach that the programme offers. The panel shares this view and sees it as another strength of the programme. In its view, the ILOs have been formulated too broadly. It strongly advises the programme to revise them so that they reflect the learning objectives of the different courses in a more precise way, as well as the programme's overall aim.

### *Master's programme Health Education and Promotion*

The panel concludes that the HEP programme has phrased its main goal and learning objectives in a clear manner. The programme has a strong practice orientation, and its 27 ILOs match national and international requirements. The ILOs adequately reflect the programme's academic orientation (master's level). The panel shares the programme's view that the 2013 IUHPE European Health Promotion Accreditation can be seen as an indication that the programme meets specified competency-based criteria and professional standards as endorsed at a national and European level.

### *Master's programme Work, Health and Career*

The WHC programme is in tune with recent societal developments, in which municipalities have been given new responsibilities and there are considerable problems with regard to labour participation. In the panel's view, these developments call for highly educated occupational health professionals who are trained to adopt a multi-level approach and are able to provide solutions. The programme has a clear goal, and the underlying concepts are valid and up-to-date. However, the panel feels that the connection with the working field (occupational physicians, doctors appointed by insurance companies and other occupational health professionals) and target group ('workers') could be made more explicit. It considers the 31 ILOs adequately formulated and convincingly geared towards an academic master's level.

### **Conclusion**

*Master's programme Epidemiology:* the panel assesses Standard 1 as 'satisfactory'.

*Master's programme Healthcare Policy, Innovation and Management:* the panel assesses Standard 1 as 'satisfactory'.

*Master's programme Health Education and Promotion:* the panel assesses Standard 1 as 'satisfactory'.

*Master's programme Work, Health and Career:* the panel assesses Standard 1 as 'satisfactory'.

### **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.

#### **Explanation:**

The intended learning outcomes have been adequately translated into educational objectives of (components of) the curriculum. The diversity of the students admitted is taken into account in this respect. The teachers have sufficient expertise in terms of both subject matter and teaching methods to teach the curriculum, and provide appropriate guidance. The teaching-learning environment encourages students to play an active role in the design of their own learning process (student-centred approach). Programme-specific services and facilities are assessed, unless they involve institution-wide services and facilities already reported on during the institutional audit.

### **Findings**

#### *2.1. Programmes*

The curricula of all four master's programmes discussed in this report are scheduled according to Maastricht University's planning of the academic year into six blocks of 8-8-4 weeks. All programmes are offered both full-time and part-time, and courses are planned on Tuesdays and Fridays. Part-time students follow classes on either Tuesday or Friday in their first and second year.

#### *Master's programme Epidemiology*

The curriculum of the master's programme Epidemiology consists of an introductory course (1 EC) and eight subsequent courses (see Appendix 3). It concludes with the master's thesis project ('Scientific Research' 18 EC). As explained in the self-evaluation report, the introductory course and the next four courses (6 EC each) provide the necessary basics for the programme: students learn to understand relevant epidemiological concepts such as intervention studies, RCT design, observational research, etc. In subsequent courses ('Applied Epidemiology', 'Molecular and Genetic Epidemiology', both 3 EC) students have to apply these concepts and critically evaluate them ('Systematic literature review & meta-analysis', 6 EC). All skills are integrated in the course 'Writing a research proposal' (6 EC) and, finally, in the research and thesis period (previously 16 weeks, now



12 weeks). The master's thesis is the result of a short placement period. The results are written in the format of a research article, which complies with the guidelines of the target journal.

From talking to the students, the panel concludes that they found the introductory course very useful. This intensive, five-day course summarizes the knowledge that has been gained in the bachelor's degree Health Sciences and familiarises students with the specific epidemiological terminology. During the site visit, the panel studied three other courses in more detail: 'Observational Research', 'Advanced Statistics Analysis Techniques' and 'Writing a Research Proposal'. It concludes that these courses have been structured in a logical manner. For instance, the 'Advanced Statistics' course starts with a survey of what students have previously learned regarding statistics and ends with them making multi-level analyses. The panel members were most enthusiastic about the 'Writing a research proposal' course. It precedes the last two blocks in which students carry out their master's thesis research. The panel considered this course to be particularly well structured, and it liked the fact that students, when formulating a research question, are actively encouraged to take the ethical implications of their research into account. In general, it concludes that the basic elements of epidemiological research are firmly embedded in the programme. Each course has clearly defined learning objectives that tie in well with the ILOs. Molecular epidemiology and nutritional epidemiology seem to feature most prominently in the programme. The panel was pleased to see that the programme management is constantly improving the curriculum, by rescheduling and expanding classes, and by taking student evaluations to heart.

#### *Master's programme Healthcare Policy, Innovation and Management*

The HPIM programme has seven courses (see Appendix 3), each worth 6 EC. It concludes with the master's thesis research project (18 EC), for which students choose either a predefined topic or select their own, as long as it fits the research topics of the CAPHRI research school. The three 'regular' courses deal with different perspectives of innovation (the economic view in 'Economics of Healthcare', the policy view in 'Healthcare Governance, Ethics and Law', and the logistical view in 'Patient Logistics in Healthcare'), and the subsequent three cover different managerial perspectives on innovation. The seventh course, offered halfway through the year in block 3 (split into two halves for part-time students), is a 'Research Method' course.

Since September 2015, students have had the opportunity to follow a Double Master's Degree Programme in 'Health, Economics and Management'. This means that they follow the master's programme in Health Economics in their first year at the University of Cologne and the master's programme HPIM in the second year at Maastricht University. The curriculum of the second year is identical to that of the HPIM master's programme, and graduates of the Double Master receive two diplomas. Regular HPIM students follow their entire master's programme at Maastricht University. Each year a maximum of ten students are selected for the Double Master's Programme on the basis of study results (bachelor average grade of at least 6.8 on a ten-point scale), English proficiency and, most importantly, motivation. The Double Master's Programme enables the students to gain international experience and complete a two-year master's programme and introduces them to new topics and disciplines. As mentioned above, the panel is enthusiastic about the set-up of the Double Master's Programme, and it can see that this is an attractive option for students to broaden their horizons and gain valuable experience.

The panel was impressed with the transparent way in which the HPIM programme has been organised. The course manuals give students a good idea of the learning objectives and set-up of the courses, and there is a clear link between the course objectives and the ILOs (albeit rather generic). It also liked the fact that students can opt for a short internship or study abroad, and that there are guest lectures given by researchers from other universities and practitioners from the professional field (this is also true for the HEP and WHC programmes, see section 2.4). However, it feels that guest lectures alone do not fill the gap between theory and practice. The link between the courses and the real-life practice could be further improved by, for example, more possibilities for short practicals and site visits.

The panel members studied three courses in more detail, 'Economics of Healthcare', 'Health Systems Governance' and 'Financial Management of Healthcare Organizations'. They concluded that these courses have been planned and executed well, from both an organisational and didactic perspective. In general, the theory is explained well by using many cases. Nevertheless, in 'Economics of Healthcare' the panel would have expected more attention to be paid to recent problems in health care systems, such as how to involve citizens and health care professionals better in the decision-making process. And in the 'Health Systems Governance' course, the panel felt that, though students are offered all the necessary tools, they do not get to see how these work in daily practice. It also thought that the programme could employ examples from the south of the Netherlands here, rather than from the UK. In general, it noticed that the emphasis in the courses is on historical sources that students have to know. The question of whether the programme is sufficiently 'up to date' was discussed during the site visit. From these meetings and especially from talking to the students, the panel felt reassured that the students are sufficiently aware of emerging changes and that they discuss them in class as well.

#### *Master's programme Health Education and Promotion*

Six courses of each 6 EC form the core of the HEP programme (see Appendix 3). In addition, there is a course halfway through the programme (block 3), which prepares students for conducting scientific research. Part-time students follow half of this course in block 3 and the other half in block 5. The master's thesis research project (18 EC) is scheduled in the last two blocks. The programme uses two models for health promotion planning, the Precede-Proceed model and the Intervention Mapping approach. The courses follow the sequences described in these two models: determining health behaviour factors, changing these determinants with theoretical methods and practical applications, developing interventions, studying the dissemination and implementation of interventions and efficacy/effectiveness, and targeting health problems effectively by considering the processes and strategies that enable people to improve their health.

From studying the programme as a whole and a few courses in more detail, the panel concludes that this programme has been structured well. Course manuals give students a clear idea of the learning objectives. The courses build logically on each other, and the programme as a whole ties in well with the intended learning outcomes. Students carry out a broad range of assignments, which gives them the opportunity to develop the skills and competencies that they will need after graduation, according to the panel. The panel studied the courses 'Changing Health Behaviour', 'Intervention Development' and 'Implementation and Evaluation' in more detail. All of them are offered to both HEP students (the majority, see section 2.3) and WHC students. In addition, they also jointly follow the 'Preparation for Scientific Research' course in block 3. The panel was pleased to see that all of these courses used a different educational format, and that students are encouraged to actively engage with the theory. It was impressed with the set-up of these specific courses, the careful manner in which the tutor instructions had been composed, and the way in which assessment takes place. The panel noted that the students also appreciate these courses highly, as well as the curriculum as a whole. It was a bit surprised to see that the course manuals state that students have to be present at a minimum of 75% of the course, and would recommend changing this to 100%.

#### *Master's programme Work, Health and Career*

The master's programme WHC cooperates intensively with the master's programme Health Education and Promotion. In the first four blocks, it shares three educational courses and one research preparation course (all 6 EC) with the HEP programme (see Appendix 3). According to the self-evaluation report, all courses (shared courses and WHC courses) 'follow the sequence of the occupational health management cycle approach, namely: problem definition and needs assessment [WHC course 'Determinants of health and labour participation'], intervention development [WHC course 'Strategies for Health Protection, Disease Prevention and Re-integration into Work'] and implementation and evaluation/monitoring' [WHC course 'Occupational Health Management']. The self-evaluation report also distinguishes between three trajectories in the programme: an International Classification of Functioning and Diseases (ICF) trajectory, an Evidence-Based Occupational Health (EBOH) trajectory, and a Communication and Skills trajectory. Each trajectory



consists of several training sessions. The programme concludes with the master's thesis research project (18 EC).

The panel looked at the WHC programme as a whole and at the three separate WHC courses (in addition to three HEP courses, see above) in more detail. It also studied the manuals for two of the three trajectories. On the whole, it struck the panel as positive that the programme contains many group assignments. The courses cover themes that are both interesting and relevant for occupational health professionals. The training sessions teach the students how to use relevant tools, and cases are being dealt with at several levels: that of the individual, the organisation and national policy making. The panel members also pointed out that the courses are well structured and use a good mix of 'old' and recent literature. Each course has clearly defined learning objectives that tie in well with the ILOs. However, the panel also felt that, for two of the courses it studied in more detail, the concluding exams could have been more challenging, by using fewer questions in which knowledge is being reproduced, and more in-depth questions demanding the application and evaluation of knowledge and understanding. In its view, the programme as a whole could make the attention given to mental health issues more explicit, as this is a highly important and increasingly relevant topic for occupational health professionals.

### *Internationalisation*

A subject that is relevant for the curricula of all programmes is internationalisation. The panel was surprised to see that 'internationalisation' is, at present, not mentioned in the ILOs, even though each programme has a considerable number of students from abroad or students taking placements abroad, and members of staff frequently call upon them to share their experiences. During the site visit, the panel asked the programme management what their aims are regarding internationalisation. The programme management explained that they indeed actively encourage comparisons between the Dutch health care system and health care systems abroad, for instance to get students thinking about how to successfully implement health policies in countries other than the Netherlands. The panel notices that all four programmes adequately deal with international cases in the courses and therefore have a distinct international profile, but it also thinks that this international aspect could be made more explicit. It advises the programmes to set specific goals with regard to internationalisation. These aims can then be adopted in the intended learning outcomes of the courses and of the programmes as a whole. For a conceptual framework and educational grounding of international competences, the panel suggests turning to the ICOM framework for internationalisation. This framework, which has been developed by the University of Leuven, deals with topics such as personal growth, intercultural competences, command of a foreign language, international commitment and specific international expertise. The panel was pleased to hear that internationalisation (for instance, what does internationalisation mean for students and staff?) is also on the agenda of the educational committee. The subject has been discussed with the Platform Internationalisation during meetings in order to increase the attention for internationalisation in the ILOs.

### *2.2. Didactics*

The underlying didactic concept of the master's programmes is problem-based learning (PBL), a student-centred approach with an emphasis on contextual, constructive and collaborative learning. As a result, lectures are kept to a minimum, students perform a lot of project work, and self-motivation is important. All four master's programmes use a wide range of educational formats: tutorials (with a maximum of 12 students), lectures, research practicals (EPI programme), project work, training sessions (most notably in the WHC programme), Team-based learning (HPIM) and meetings with career counsellors in the HEP and WHC programmes (career advisors from UM Career Services or members of staff). In 2016/2017, the HEP programme conducted a pilot to study the feasibility of offering one of its courses ('Intervention Development') online as a stand-alone course. None of the students the panel interviewed had taken this course, but the panel learned that the programme is planning to develop more courses as e-courses. It concludes that, in general, the didactic formats tie in well with the intended learning outcomes of the courses. It values the didactical



approach of PBL and believes that this approach has been successfully embedded in the programme, with a lot of attention being paid to professional and academic skills. It is enthusiastic about the plans for the further development of didactic formats which stimulate student-centred learning.

In PBL and several of the other educational formats used, students work in small groups that resemble the teams in which they will most likely work in the professional field. A topic that was discussed quite extensively during the site visit is how group assignments influence students' individual learning experiences and vice versa. All groups of students that the panel spoke to mentioned that though project (group) work can be very rewarding and beneficial, there are also some potential downsides. The students may have a different set of skills/a different educational background or may adopt a more active or passive role in the project groups. They said they were reluctant to mention these problems to the tutors because they did not want their fellow students to be excluded. In addition, according to the students, there is not a lot of room to mention problems. Staff members prefer to point out the positive aspects of group work and explain that students have to learn to deal with different skills and attitudes within a group.

The panel can see the important benefits of group work. However, it also thinks that the potential downsides should not be brushed aside too lightly. In its view, not only the students who are lacking certain skills (most notably academic writing skills or statistical knowledge) but also excellent students can be hampered in their progress when the entry level differs greatly. To quote the students: 'Sometimes the [written] work is so bad that you don't know where to start. Then it's easier to do it again yourself, but that does cost a lot of time in a one-year programme'. For statistics another group of students rightly said, 'Of course, if you start at a higher level, you will be better at the end.' The panel also assumes that active students may reduce their contribution to project groups when they believe other members of the group are free-riders. The problem of different entry levels is intertwined with the admission criteria; another has to do with addressing free-rider behaviour. The panel understood that active participation is currently monitored by keeping track of who is present at group meetings. Presence alone, of course, does not equal active participation. The panel suggests that active participation could be monitored differently, and it encourages the programmes to develop different ways of doing so, for instance by making the individual work or contribution of students more explicit. The second problem will be discussed under section 2.3.

From talking to the students of all four programmes, the panel concludes that, in general, they feel attracted to these programmes because of the PBL didactical approach and group work. They recognize and appreciate that most of them are being trained for new roles in the domain of public health. In their view, group work is very much in line with the multidisciplinary field in which they will end up working. In the HEP and WHC programmes, students and alumni liked the translation of theory into practice in practical assignments such as actual campaigns and training sessions. They described them as definite highlights of their programmes.

### *2.3 Intake, study guidance, feasibility*

The admission procedure for the four master's programmes is described in the self-evaluation reports. It is identical for all four. The programmes directly admit students with an academic bachelor's degree in a relevant field from a Dutch university. Which domains are considered relevant for each of the programmes is described on the university website, where prospective students can also find information on the registration process. Students from abroad or students with a bachelor of applied sciences in a relevant field must first pass a Graduate Record Examination (GRE test). If English is not their native language, this second group must also be able to provide evidence of a sufficient command of English, either by previous education or by means of an IELTS, TOEFL or Cambridge test. The Health Admission Board assesses all applications and decides whether the applicants may enter the programme.

There is no pre-master programme. Instead, each programme offers different tools to help students from various backgrounds. For those unaccustomed to PBL, the HPIM programme offers an online



tool ('Knowledge to know') that deals with various aspects of PBL, such as setting aims or selecting literature for the tutorial group meeting. As mentioned above, the EPI programme starts with an introductory course to get students on the same page. It also offers help when students need to brush up their statistical skills. The HEP and WHC programmes have added additional educational activities regarding academic skills in the courses, for instance covering how to make qualitative and quantitative analyses, and how to read and interpret statistical outcomes. The programme management explained that PBL itself is considered a very useful tool to bring students to the same level and let them benefit from each other's knowledge and skills. The panel shares this view, but with the above-mentioned reservations that this inevitably has an effect on the level that can be achieved as well as on the quality of the programmes. It is not worried that students do not achieve the ILOs (see standard 4) but does think that a higher level can be reached if the programme is stricter in its selection process. It strongly recommends reconsidering whether a GRE test is a sufficient way of selecting students for their aptness for the programme. This test focuses on verbal reasoning, quantitative reasoning, analytical writing and critical thinking. It does not test whether students master academic skills or statistics at an academic bachelor's level. During the site visit, the panel pointed out that in its opinion, it is much more common to offer a pre-master programme to students who do not fully fit the requirements. It sees the fact that all student groups reported problems arising from students having different backgrounds as an indication that the current admission procedure might be overly lenient. In its view, the quality of the enrolling students should carry more weight than the number starting the programmes.

Of the four master's programmes discussed in this report, the HPIM programme attracts the most students, followed by the HEP programme. The first programme has steadily increased from 65 students in 2012/2013 to 130 students in 2016/2017; the second programme now has an annual intake of 70-80 students. With an annual intake of approximately 20 students each, the EPI programme and the WHC programme are relatively small. However, EPI courses are also open to students from the Health Sciences Research master's programme and PhD students, and the WHC programme shares courses with the HEP programme. As a result, the number of participants per course is usually higher than the number of students. Looking at the students' backgrounds, the panel concludes that the number of students with an Applied Sciences background is relatively high in the HEP and WHC programme: 23-24%. The number of part-time students is low (less than 9% in all of the programmes), especially in the WHC programme (no students in 2016/2017 and 1 student in 2017/2018). Students from other European countries are well represented in all four programmes.

Each programme organises different facilities to guide the students. Students of the EPI programme can apply to have a computer and desk at the Department of Epidemiology during their placement period. They are also involved in research and social meetings at the Department, and they take part in a mini-symposium that concludes the programme. After graduation, the programme offers help to students who wish to register as an A-type epidemiologist. Apart from the online tool on PBL already mentioned above, the HPIM programme has a buddy/mentor system which links students who are familiar with PBL and/or studying in Maastricht to students from elsewhere. This programme also hosts a yearly 'Career Event' with many activities to help students prepare for the job market. From the self-evaluation report, but also from talking to the HPIM students, the panel found that this event is very much appreciated by the students. The HEP and WHC programmes also organise several career events and a closing event. These events are positively evaluated as well.

Comparing the services offered to the students, and based on its meetings with students, the panel concludes that students from the HPIM, HEP and WHC programmes seem to feel better prepared for their future career than those from the EPI programme. It suggests that this programme could perhaps also offer an annual career event to inform students about future career possibilities.

The panel has not identified any stumbling blocks in the curricula which could prevent students from successfully completing the programmes in the nominal time. It therefore concludes that, in terms of study load, the programmes are feasible and can be completed within one year. This is also



testified by the completion rates. According to the numbers provided in the self-assessment reports, 69-82% of students complete the programmes within one year and 96-100% within two years. These numbers are based on the academic years 2014/2015 and 2015/2016 – more recent numbers were not yet available. The panel considers these numbers satisfactory.

#### 2.4 Staff

The majority of teachers delivering the programmes have a PhD degree and a University Teaching Qualification. The numbers vary slightly per master's programme, with the EPI core staff having the best qualified teachers (all have a PhD and UTQ) and the HEP programme the lowest (70% has a PhD degree and 68% a UTQ - these numbers go up when excluding the PhD students who teach in the programme). As explained in the self-evaluation report, the faculty's Institute for Education calculates the number of staff required based on two factors: the number of students enrolled in the programmes and the number of hours assigned to specific teaching roles. All of the programmes distinguish between regular staff members and core staff members (who deliver more than 50 hours of teaching in the programme per year). In 2015/2016, the core staff of the EPI programme consisted of 8 members; the HPIM programme had 27 members; the HEP programme had 22 members; and the WHC programme had 8 members. The EPI programme points out that a small core staff has both advantages and disadvantages, such as the difficulty of finding a replacement in case of illness. Therefore, the number of staff has now been increased in this programme.

All teachers are involved in research, with the HPIM, HEP and WHC programmes having strong links to the CAPRI and NUTRIM research schools as well as professional practice. Staff members of the HPIM, HEP and WHC programmes are involved in the 'Academische Werkplaats Publieke Gezondheid', a Limburg-based academic centre for public health in which professionals from policy, research and practice work together on research projects. This safeguards close ties with both research and the job market. The panel was satisfied with the core staff of the EPI programme, which it considered to be very strong. It noticed that this programme strives to have lecturers who are experts in the subject matter of the courses, which is reflected in high student evaluations of these classes (namely 8.1-8.4 on a ten-point scale). The students told the panel that they appreciate that lecturers/tutors are generally very approachable. The panel was impressed with the educational support that staff members get from the Department of Educational Development, which offers introductory courses on PBL as well as on new and innovative ways of teaching.

A subject that was discussed in more detail during the site visit was the increased workload of staff members. Within the last five years, two of the programmes (HPIM and HEP) have doubled in size, and they are still increasing. From talking to the students, the panel learned that because of this increase, the HPIM programme could not always provide tutors for the PBL sessions. The panel shares the students' concern that this can be problematic for students who are not yet accustomed to this educational approach. The subject of a high workload also came up in the panel's meeting with the Educational Committee. In the minutes of this Committee, the high work pressure of staff in the Health domain is a recurrent theme. The Committee members explained to the panel that the increased workload is partly caused by a higher administrative burden for teachers and partly by staff members trying to find a balance between teaching and research. After a meeting at the senior management level, an appointed committee has started an investigation to map out the workload problems within the faculty as perceived by both junior and senior staff members. One of the questions that need to be answered is whether tutors are being given enough hours to perform their educational role well. The panel appreciates that it can be challenging to find a solution that is satisfactory in both the short and the long term. It strongly advises the programmes to take these complaints seriously.



## Considerations

### *Master's programme Epidemiology*

The panel concludes that the basic elements of epidemiological research are firmly embedded in the programme. It was pleased to see that the programme management is constantly improving the curriculum and that it takes student evaluations to heart. Each course has clearly defined learning objectives that tie in well with the ILOs, and the courses have a logical sequence. Molecular epidemiology and nutritional epidemiology seem to feature most prominently in the programme. The panel thinks that the international aspect of the programme could be made more explicit and advises the programme to set specific goals with regard to internationalisation.

### *Master's programme Healthcare Policy, Innovation and Management*

The panel considers the HPIM programme to be very transparent and well organised. Each course has a manual with clear course objectives. The order of courses is well thought out and logical. The panel liked the fact that students can opt for a short internship or study abroad, and that there are guest lectures given by researchers from other universities and practitioners from the professional field. However, the panel felt that the link between the courses and the field of practice could be improved further. It also thinks that the international aspect of the programme could be made more explicit and advises the programme to set specific goals with regard to internationalisation.

### *Master's programme Health Education and Promotion*

From studying the programme as a whole and a few courses in more detail, the panel concludes that this programme has been structured well. Course manuals give students a clear idea of the learning objectives. The courses build logically on each other, and the programme as a whole ties in well with the intended learning outcomes. The panel liked the fact that there are guest lectures given by researchers from other universities and practitioners from the professional field. Students carry out a broad range of assignments, which gives them the opportunity to develop the skills and competencies that they will need after graduation, according to the panel. The international aspect of the programme could be made more explicit. The panel advises the programme to set specific goals with regard to internationalisation.

### *Master's programme Work, Health and Career*

The panel concludes that the WHC programme deals with themes that are both interesting and relevant for occupational health professionals. The training sessions teach the students how to use relevant tools, and cases are dealt with at several levels: that of the individual, the organisation and national policy making. The panel liked the fact that there are guest lectures given by researchers from other universities and practitioners from the professional field. Each course has clearly defined learning objectives that tie in well with the ILOs. The courses are structured well and use a good mix of 'old' and recent literature. However, the panel also felt that, for two of the courses they studied in more detail, the concluding exams could have been more challenging. Also, in its view, the programme as a whole could pay more explicit attention to mental health issues and be clearer about its specific goals regarding internationalisation.

### *Didactics*

The programmes use a wide range of educational formats; the underlying didactic concept is problem-based learning. The panel concludes that, in general, the educational formats tie in well with the intended learning outcomes of the courses. It also believes that the educational approach has been successfully embedded in the programmes, with a lot of attention being paid to professional and academic skills.

### *Intake and admission*

A significant number of students in all programmes come from abroad or from a university of applied sciences. There is no pre-master programme. As a result, students need to master different skills and/or have a different educational background. In the panel's view, not only the students who are lacking certain skills (most notably academic writing skills or statistical knowledge) but also excellent students can be hampered in their progress when the entry level differs greatly. It strongly

recommends reconsidering whether a GRE test is a sufficient way of selecting students for the programmes.

#### *Staff*

Most teachers (all teachers in the EPI programme) have a PhD degree and a University Teaching Qualification. In 2015/2016, the core staff of the EPI programme consisted of eight members; that of the HPIM programme of 27 members, and that of the HEP programme of 22 members; and that of the WHC programmes of 8 members. The panel is satisfied with the quality of the teaching. Lecturers have strong links to research, and the panel considers them to be experts in their field. They also have close links to the professional practice, which ensures that the programmes tie in with the job market. The panel was impressed with the educational support that staff members get from the Department of Educational Development. During the site visit the panel and the programme management talked about the workload of staff members, which is considered to be high. The panel strongly advises the programme to take complaints about a high workload seriously.

The curricula, teaching-learning environments and the quality of the teaching staff enable the incoming students of all master's programmes to achieve the intended learning outcomes.

#### **Conclusion**

*Master's programme Epidemiology:* the panel assesses Standard 2 as 'satisfactory'.

*Master's programme Healthcare Policy, Innovation and Management:* the panel assesses Standard 2 as 'satisfactory'.

*Master's programme Health Education and Promotion:* the panel assesses Standard 2 as 'satisfactory'.

*Master's programme Work, Health and Career:* the panel assesses Standard 2 as 'satisfactory'.

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

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

#### **Explanation:**

The student assessments are valid, reliable and sufficiently independent. The requirements are transparent to the students. The quality of interim and final examinations is sufficiently safeguarded and meets the statutory quality standards. The tests support the students' own learning processes.

#### **Findings**

##### *Assessment policy*

The assessment policy of all programmes in the domain of Health is described in the document 'Assessment policy domain health' (2017). This report sets out the shared vision on assessment, the assessment policy for each programme, and the general procedures for assessment (such as compensation rules and detecting fraud/plagiarism) and quality control. The four main pillars on which the assessment policy rests are: (1) Striving for constructive alignment between intended learning outcomes, teaching activities and assessment tasks; (2) Embedding assessment *of* learning, assessment *for* learning, and assessment *as* learning approaches in comprehensive assessment programmes; (3) Fostering student engagement in learning and assessment; and (4) Continuous development of assessment in order to anticipate evolving internal and external demands. The document also has sections on expertise development and safety net procedures. During the site visit, the panel read this and two other documents regarding assessment: the annual report of the Board of Examiners and the 'project review thesis domain health' – a pilot study regarding the quality of master's thesis assessment performed by the Board of Examiners (see below). The panel was very



impressed to see how thorough and conscientious the subject of quality control and assessment is being approached within the programmes. It considers this approach as exemplary and innovative.

#### *Assessment formats*

Each of the programmes uses a variety of assessment formats: written exams, an open book exam (in the HEP programme), presentations and many writing assignments. Examples of writing assignments are individual or group papers, policy plans, questionnaires, portfolios, and research proposals. For each course, an assessment plan has been drawn up which links the course objectives to the forms of assessment. Every course is assessed in at least two ways, for instance with an exam accounting for 60% and a group paper accounting for 40% of the final grade. This spreads the study load more evenly. Group assignments never account for more than 50% of the final mark. Before exams are held, the examiners discuss the exam questions with colleagues within the course-planning group. Having studied the course manuals and a sample of twelve exams (three for each programme) in more detail, the panel concludes that, in general, the assessment ties in well with the didactical approach by supporting contextual, constructive and collaborative learning. The assessment is also convincingly geared towards the course objectives ('constructive alignment'). By using a wide variety of assessment methods, all objectives are assessed explicitly. Furthermore, the panel is full of praise for the support that is available for examiners when composing or grading exams. One minor point for improvement that it identified is the lack of a programme-wide assessment plan. The programmes could explore the possibility of drafting one in order to visualise how the assessment of the various courses is linked to the ILOs and how the different assessment forms are divided over the courses.

#### *Assessment of master's research project*

Students can access the procedure for the master's research project and the guidelines for the master's thesis on the Student Portal. The requirements for the thesis in the Double Master's Programme are identical to those for a HPIM thesis. The Double Master's Programme theses are independently assessed by a first examiner at Maastricht University and a second examiner at the University of Cologne. The master's thesis takes the form of a research article; the format depends on the target journal. In the HPIM programme, students may also choose to write a classical thesis, and approximately 66% of the students prefer this format. In all cases, however, the thesis contains an introduction setting out the aims and research questions, a section on data collection, and a concluding section in which students evaluate the research and its implications. Two examiners assess the thesis. The first examiner also assesses the 'scientific research' period (25% of the final grade); the second examiner only assesses the research article. One of the two assessors has to be on the scientific staff of the programme and have a PhD degree. The second assessor must not have been involved in the process of data collection and writing, nor can he or she be a PhD candidate of the first supervisor. Both assessors complete the 'Master Thesis Health' assessment form independently. This form distinguishes between performance skills, writing skills and content knowledge relevant to the specific study programme. The two assessors' grades have to be at least a 6.0 to pass (on a ten-point scale); the average of the two grades constitutes the final grade. As of 2016/2017, the Board of Examiners approaches a third assessor if the first and second supervisor's grades differ by more than two points. The third grade is only taken into account if the student wishes it to be.

In the panel's opinion, it was hard to judge in the random sample of theses it read how the supervisors 'translated' the assessment of particular parts of the thesis process (marked with pluses or minuses) to an overall grade. Though the thesis assessment form provides room for written feedback, this option is not often used. From talking to the students, the panel concludes that for them, too, the assessment procedure could be more transparent. Depending on the level of oral or written feedback that students received from their supervisors (sometimes excellent, other times sparse), it was easier or harder for them to assess the pluses and minuses on the assessment form. The panel has shared its thoughts on the use of the assessment forms with the Board of Examiners, and recommends modifying the assessment forms so that it is clear to both students and external

assessors how the different categories have been assessed and how much weight each category has in the final grade.

#### *Board of Examiners*

The Board of Examiners has to safeguard the quality of assessment in the programmes. The chair, vice-chair and secretary meet every week to discuss day-to-day affairs; the Board as a whole meets every six weeks. In total, there are seven members. The seventh member is an external member and an expert on assessment. Together the Board members represent all programmes in the domain of Health. Students can contact the Board of Examiners directly. Because it deals with eleven programmes, the Board receives many questions from students regarding compensation or illness. Members of staff sometimes also contact the Board directly to ask advice on assessment formats. Board members have close bonds with the programme's management teams and the individual programme directors.

One of the objectives of the Board of Examiners is to improve and standardise the grading of theses. In 2017, it organised a random sample survey of master thesis assessments in the four programmes discussed in this report. The theses had been completed in 2015/2016 or 2014/2015 (for the EPI programme). From each programme, eight theses were selected at random: three with a grade around the pass/fail mark (<6.5), two with an average grade (between 6.6 and 7.9) and three with a high grade (8.0 or higher). All selected theses were subsequently assessed by a third, independent assessor (the WHC programme did not participate in the survey). In general, this third assessor graded the theses lower than had been done by the first and second supervisors, in some cases considerably lower. The panel found it very interesting to read the report of this master's thesis review project, the recommendations made by the Board of Examiners, and the list of action points created. It was impressed with the thorough way in which this project had been set up and carried out and sees it as proof of the ambitions and active approach of the Board of Examiners.

#### **Considerations**

The panel concludes that the programmes have a good assessment system in place, with careful procedures that are constantly being tightened up. Course descriptions give students a clear idea of how assessment takes place. The programmes use a variety of assessment forms, with a good mix of individual and group assessments. In the panel's view, a programme-wide assessment plan can show even better how the assessment of individual courses and of all courses together connects to the intended learning outcomes.

The transparency of exam questions is checked before exams are held. The panel is enthusiastic about this practice, and it applauds the support available to examiners when composing and grading exams and writing assignments. The assessment procedure for the master's thesis is clear, and the panel is pleased to see that the programmes devote much attention to the independence of both thesis assessors. It does recommend changing the assessment form so students and assessors gain more insight into how the final grade was established.

The panel praises the active role that the Board of Examiners plays in the programmes in the domain of Health. It considers its vision on assessment as comprehensive, innovative and exemplary. In its view, the master's programmes are ahead of national developments in terms of assessment and can therefore be regarded as worthy of emulation by similar programmes in the Netherlands.

## Conclusion

*Master's programme Epidemiology:* the panel assesses Standard 3 as 'good'.

*Master's programme Healthcare Policy, Innovation and Management:* the panel assesses Standard 3 as 'good'.

*Master's programme Health Education and Promotion:* the panel assesses Standard 3 as 'good'.

*Master's programme Work, Health and Career:* the panel assesses Standard 3 as 'good'.

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

The programme demonstrates that the intended learning outcomes are achieved.

#### **Explanation:**

The achievement of the intended learning outcomes is demonstrated by the results of tests, the final projects, and the performance of graduates in actual practice or in post-graduate programmes.

## Findings

To assess whether the intended learning outcomes have been achieved, the panel studied a sample of theses for each programme, and interviewed several alumni. It also looked at the success rates of the programmes and at the positions that alumni take up after graduation.

The four programmes consider the master's thesis project to be a 'proof of competence of all specific skills acquired during the entire programme'. During the site visit, the panel asked the programme management how students find a topic for their research project. They explained that this differs per programme, but that on the whole there is a digital list of subjects for each programme. Students can either choose a topic from the list and then participate in a large study or research group, or they can suggest their own topic. A thesis coordinator checks whether the subject matches the student's programme and looks at the scope, quality and feasibility of the proposed research. Because of the limited time in which the thesis needs to be completed, most students do not collect their own research data.

The panel studied fifteen theses for each programme. With the exception of two theses (one in HPIM, with a focus on patients instead of healthcare policy, and one in the HEP programme), the panel thought that the subject of the theses matched the programme well. There were no theses that it considered unsatisfactory. In general, it agreed with the grading, but in four cases it would have marked a thesis higher (7 instead of a 6) or lower (6 instead of an 8). It considered most theses to be well written and well documented. In nearly all theses, the research had been designed and carried out correctly, and the theoretical framework was appropriate. The panel concludes that the students demonstrate in the master's theses that they have indeed achieved the intended learning outcomes.

The success rates of the programmes have risen between 2012/2013 and 2015/2016. In 2012/2013, 55% of students in the EPI programme had completed the programme in the nominal time (one year). In 2015/2016, this was 82%. For the HPIM programmes, these numbers increased from 62% to 75%. For the HEP programme, there was a rise from 73% to 75%, but here completion rates were higher in the two academic years in between. And, finally, the small-scale WHC programme saw an increase from 55% of students graduating after one year in 2013/2014 to 69% doing so in 2015/2016. The number of students who complete the programmes within two years ranges between 96% and 100%, including for part-time students (after three years). The panel thinks that these success rates can be regarded as satisfactory.

According to the employability data provided in the self-evaluation reports, graduates of all four programmes find a job with relative ease. Three of the four programmes have set up LinkedIn groups



to stay in touch with alumni, to keep track of the positions that they hold, and to facilitate contact between the students and graduates. At the time of the site visit, the EPI programme was in the process of setting up such a LinkedIn group. Based on the information of 58 graduates since 2011, most graduates of the EPI programme work in scientific research (57%) with or without preventive and clinical tasks and/or educational responsibilities. Around a third of graduates work abroad. This is in line with what graduates of this programme told the panel, that a lot of students apply and are already accepted for PhD programmes by the end of the programme. Of the 2017 graduates, about a quarter left for a research position in the UK. The HPIM LinkedIn Network has 405 members. This Network shows that graduates take up a wide range of positions in healthcare organisations, from account managers and care advisors to health economists and quality managers. Fewer HPIM graduates pursue a career in research, and the number of PhD students is low, compared to the EPI programme. The panel considers this in line with the practical orientation of this programme. The HEP and WHC LinkedIn Networks have 273 and 50 members, respectively. Three of the HEP graduates with whom the panel spoke found jobs straight away, but they considered themselves lucky. They explained that many fellow graduates went into consultancy. According to the National Alumni Survey, 53% of the HEP respondents found a job within the first month after graduation, 94% within six months after graduation. The vast majority (86%) works in the healthcare sector as managers, policy advisors, consultants, etc. Graduates of the WHC programme also work as consultants (either at an agency or self-employed), health managers/HR advisors, policy makers/advisors and researchers/teachers.

During the site visit, the panel spoke with graduates from all four programmes. These alumni were enthusiastic about the programme they had followed. Not only did they feel that the programme had prepared them well for their current job, some of them would also recommend the programme to others. The panel concludes that the programmes adequately prepare students for the professional field. The fact that graduates find a job with relative ease and that they take up a wide variety of jobs in the healthcare sector is seen as proof that the programmes match the expectations of the professional field, and that the intended learning outcomes are indeed achieved.

### **Considerations**

The panel concludes that students of all four programmes achieve the intended learning outcomes. In general, the thesis topics match the research or practice orientation of the programmes, and the theses testify that students are able to independently design, conduct and evaluate a research project. In general, the panel members agreed with the grading. They considered most theses to be well written and well documented. In the majority of the theses, the research had been designed and carried out correctly, and the theoretical framework was appropriate.

In the period since the last assessment visit, the success rates of all of the programmes have gone up. They are now satisfactory, with between 69% and 82% of students graduating in the nominal time. Master's graduates have no difficulty in finding a job after graduation. Most EPI graduates pursue a career in research, and most HPIM, HEP and WHC graduates take up managerial, advisory, consultancy or educational roles in private and public healthcare organisations. The panel feels this is in line with the aims and orientation of the programmes.

### **Conclusion**

*Master's programme Epidemiology:* the panel assesses Standard 4 as 'satisfactory'.

*Master's programme Healthcare Policy, Innovation and Management:* the panel assesses Standard 4 as 'satisfactory'.

*Master's programme Health Education and Promotion:* the panel assesses Standard 4 as 'satisfactory'.

*Master's programme Work, Health and Career:* the panel assesses Standard 4 as 'satisfactory'.

## GENERAL CONCLUSION

*Master's programme Epidemiology:* the panel assesses Standard 1, 2 and 4 as 'satisfactory' and Standard 3 as 'good'.

*Master's programme Healthcare Policy, Innovation and Management:* the panel assesses Standard 1, 2 and 4 as 'satisfactory' and Standard 3 as 'good'.

*Master's programme Health Education and Promotion:* the panel assesses Standard 1, 2 and 4 as 'satisfactory' and Standard 3 as 'good'.

*Master's programme Work, Health and Career:* the panel assesses Standard 1, 2 and 4 as 'satisfactory' and Standard 3 as 'good'.

### **Conclusion**

The panel assesses the *master's programme Epidemiology* as 'satisfactory'.

The panel assesses the *master's programme Healthcare Policy, Innovation and Management* as 'satisfactory'.

The panel assesses the *master's programme Health Education and Promotion* as 'satisfactory'.

The panel assesses the *master's programme Work, Health and Career* as 'satisfactory'.





# APPENDICES



## APPENDIX 1: DOMAIN-SPECIFIC FRAMEWORK OF REFERENCE

The domain-specific frame of reference Health Sciences (HS) has been drawn up for the purpose of assessing the bachelor's and master's programmes with the NVAO cluster HS. The frame of reference describes in general terms the domain in which the Health Sciences' programmes are positioned.

### *Frame of reference HS*

Central to the concept of health in the frame of reference of the HS cluster is Huber's definition (2011)<sup>1</sup>:

'Health is the ability to adapt and to self-manage in the face of social, physical, and emotional challenges.' This new concept of health has been formed in reaction to the criticism on the WHO definition from 1948<sup>2</sup> that is still in use today. This definition describes health as a state of complete physical, mental and social well-being. According to this definition almost no one is healthy. Critics believe that the ideal of complete well-being has contributed to medicalisation – and with that also indirectly to the growing pressure on the affordability of healthcare. Furthermore, the static definition says nothing about the dynamic ability of humans to adequately (learn how to) cope with an illness or disability. The concept ties in with the complexity of healthcare and the changing demand for healthcare by civilians.<sup>3</sup>

Where the definition of healthcare has already been broadly formed, the HS field – which concerns itself with generating knowledge on behalf of health and healthcare – is, if possible, even broader. Health and healthcare can be viewed and contributed to from many different angles. The central question is which factors influence health, and how, direct or indirect, it is possible to contribute to the stimulation of health and effective healthcare.

The HS field is broad by definition, and no individual or education can encompass the entire domain, but will always focus on a subarea, whether multi or interdisciplinary. Within the field they are involved with, amongst others, the study of causes, diagnosis, prognosis and treatment of diseases at population level. Besides that, the field concerns questions concerning prevention, monitoring and improving the public health, as well as the content, structure and financing of healthcare. The health scientist is capable of (i) conducting and assessing scientific research, whilst observing the societal and/or clinical relevance and (ii) can apply the acquired knowledge on several domains in healthcare and related context.

It has been acknowledged both nationally and internationally that an interdisciplinary approach is required for the study of health and healthcare in a broader perspective. In actual terms this means that elements from different disciplines – like epidemiology, (para)medical care, humane biology, sociology, psychology, psychiatry, economy, statistics, organisation and policy sciences, communication sciences, philosophy, law, ethics and technology – come together.

The broadness and complexity of the field ensures that the HS domain can never fully be the object of study. Both in the field of research and education the domain becomes more substantive by focusing on one or more subfields, which will be studied both in their specific context and on their mutual cohesion. Because of this broad perspective universities' programmes will differ in focus and for that reason also in methodology and educational goals. What connects all programmes is the fact that they educate students who can add to the promotion of health and wellbeing in general, and to the future of healthcare from their own specific competences. All HS programmes strive to provide students with a solid methodological research base. Besides knowledge development in the field of research methods and techniques, the emphasis also lies on acquiring skills, such as setting up and conducting research, as well as interpreting and effectively communicating results. Attention to the

<sup>1</sup> Huber et al. How should we define health? BMJ. 2011 Jul 26;343:d4163. doi: 10.1136/bmj.d4163.

<sup>2</sup> Preamble to the Constitution of WHO as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of WHO, no. 2, p. 100) and entered into force on 7 April 1948. The definition has not been amended since 1948.

<sup>3</sup> Rapport Kaljouw, Naar nieuwe zorg en zorgberoepen: de contouren, 2015.

social (clinical) relevance of research, as well as developing a vision on the occupational and working field, society and research itself are important here.

The professional field where HS students end up after their graduation is very diverse. All students have acquired a solid academic foundation in the field of research in health and healthcare. Because of these scientific competences graduates are suitable for many positions. This is also clearly reflected in the working field: graduates can be found working in various jobs, from researchers to academic professionals in healthcare, and from policy, management or advisory roles to teaching roles.

With such a diversity in functions ahead it is to be expected that students have the opportunity to specialize themselves during their education, optionally or not, in the form of elective courses concerning the knowledge and skills that are specifically important within one or several areas in the professional field, or which are required for further education.

## APPENDIX 2: INTENDED LEARNING OUTCOMES

### Master's programme Epidemiology

#### *Knowledge and understanding*

Students who have been granted the degree of Master Epidemiology are expected to possess an advanced level of knowledge, understanding and skills with regard to:

1. The scope of epidemiology as a scientific discipline, the uses of epidemiology, and the breakdown of the sphere of epidemiological activity into subdomains (e.g., public health epidemiology vs. clinical epidemiology; descriptive epidemiology vs. analytical epidemiology; etiologic vs. prognostic vs. diagnostic epidemiology; theoretical (fundamental) vs. applied epidemiology; communicable vs. chronic diseases epidemiology; exposure-oriented vs. disease-oriented fields of epidemiology);
2. The principles and methods of observational epidemiological research;
3. The principles and methods of non-observational, experimental epidemiological research (health intervention studies);
4. Health and exposure measurement theory and the principles and methods of clinimetrics;
5. The principles and methods of systematic literature review and meta-analysis;
6. The principles, methods and techniques of statistical analysis of epidemiological data;
7. Basic principles and methods of epidemiological research into hereditary disorders and gene-environment interactions (genetic epidemiology);
8. Basic principles and methods of epidemiological research into the molecular origin of disease phenomena (molecular epidemiology);
9. The critical assessment and interpretation of epidemiological data and epidemiological study results;
10. The contents of selected fields of application of epidemiological approaches, in particular cardiovascular epidemiology, cancer epidemiology, infectious diseases epidemiology, and epidemiology of musculoskeletal disorders;
11. The requirements of an epidemiological research protocol and the steps in the development of a master thesis research protocol;
12. The design, conduct, analysis, interpretation and reporting of an epidemiological study of modest size and duration.

#### *Applying knowledge and understanding*

Students who have been granted the degree of Master Epidemiology are expected to be able to:

13. Interpret and critically assess the contents of epidemiological publications and presentations (study protocols, original articles, scientific reports, reviews, health policy documents, publications in the lay press), dealing with various types of epidemiological research;
14. Apply the main principles and techniques of both observational and intervention research, within the context of a new epidemiological study (e.g., population selection, choice of measurement tools, sample size and power calculation, preparing a randomization schedule, dealing with protocol violations, writing patient information);
15. Evaluate the methodological quality, practicability, and applicability of existing health measurement scales, and develop a new measurement scale according to the principles of clinimetrics;
16. Design, perform and present a systematic literature review to summarize the existing evidence with regard to a specific epidemiological question, taking into account the principles of systematic reviewing, research synthesis and meta-analysis;
17. Develop an appropriate strategy for the (multivariable) analysis of data collected within the context of observational or experimental epidemiological research;
18. Write, present and defend a protocol for a new epidemiological study, taking into account standards for grant application, 'subsidiology' considerations, and rules for Good Clinical Practice;
19. Conduct epidemiological research independently, solve research problems, and report on research results, also within a multidisciplinary context;

20. Integrate elements of various epidemiological knowledge domains, and apply epidemiological knowledge in new contexts, with other disciplines also involved (e.g., preparation of Health Council advices).

In order to be able to apply epidemiological knowledge and skills in an effective and constructive way the Master of Epidemiology should have developed a professional attitude, which includes the capacity to work systematically, the capacity to operate independently if needed, the capacity and preparedness to cooperate with others, and the ability to reflect critically on one's own activities. Moreover, the Master should have developed a wide interest in and a broad orientation on health issues in general and public health affairs in particular.

#### *Making judgments*

Students who have been granted the degree of Master Epidemiology are expected to be able to:

21. Form a balanced judgment regarding the appropriateness and maturity of epidemiological research output for dissemination and application within a variety of settings, e.g. health planning, individual patient care, health counselling;

22. Take a critical stand towards the use and abuse of epidemiological data and study results within various scientific and societal contexts, e.g., health policy and management, health education and promotion, preventive and clinical health care, marketing;

23. Develop a balanced view towards the potential impact of epidemiological study activities on study subjects and other persons involved, both at the individual and the community level (obtrusiveness of procedures and measurements, privacy considerations, dealing with uncertainty, etc.).

#### *Communication*

Students who have been granted the degree of Master Epidemiology are expected to be able to communicate:

24. In the English language;

25. With experts and non-experts;

26. In various settings, with various methods, and through various channels;

27. On the methods and results of various types of epidemiological study (epidemiological surveys, intervention studies, clinometric studies, systematic literature reviews, observational studies, genetic studies), and on the meaning of epidemiological data.

#### *Learning skills*

Students who have been granted the degree of Master Epidemiology have developed the learning capacities that enable them:

28. To proceed to a more advanced level of knowledge, understanding and skills with regard to epidemiological principles and issues in observational research, intervention research, clinometrics, systematic literature review, applied epidemiology, genetic epidemiology, epidemiological data analysis, protocol development and epidemiological research practice, either by participation in formal education and courses, or by self-teaching efforts.

### **Master's programme Health Education and Promotion**

#### *Knowledge and understanding*

Students are able to:

1. Describe theories and findings about:

I The relation between health and disease on the one hand and behavioural and environmental determinants on the other;

II Universal, selected and indicated prevention;

III Behavioural and environmental factors related to health and health behaviour;

IV Methods and practical applications to change the behaviour of individuals, groups and organisations;

V Methods and strategies for initiating and monitoring change at micro, meso and macro levels.

2. Describe the settings approach in health promotion.



3. Find, process and present findings in the field of health education and promotion, and do so in an efficient, critical and ethical way.
4. Relate health education and promotion to the wider context of social, political, organizational, behavioural, and biological science.
5. Give an overview of developments in local, regional, national and global health policies.
6. Explain the steps and principles of planning models and the Intervention Mapping Protocol and to apply them in the development, implementation and evaluation of interventions.
7. Design evaluations of interventions for health education and promotion.
8. Describe the fundamentals of methodology and ethics related to science.
9. Analyse data from determinant, intervention and implementation studies, including descriptive analyses, regression analysis, and hypothesis testing.
10. Contribute to the development of the health education and promotion field.

#### *Apply knowledge and understanding*

Students can:

11. Apply theories about behavioural and environmental determinants of health and the methods and practical applications to change these determinants.
12. Describe the importance of a multi-level approach to health promotion.
13. Apply the Intervention Mapping Protocol to health problems, in order to effectively initiate, organize, coordinate, implement and evaluate health promotion programmes.
14. Explain models of good practice in health promotion.
15. Use the experience from the one setting in other settings.
16. Use evidence base, theory base and models of good practice to the health promotion field.
17. Apply the fundamentals of methodology and ethics related to science into efficient and sound scientific research plans.

#### *Making judgements*

Students are able to:

18. Evaluate the empirical evidence about interventions and theories in different contexts.
19. Interpret the results of scientific research on health promotion topics and to base recommendations on these results.
20. Integrate societal responsibilities and ethical considerations in the development of planned health promotion activities.
21. Critically discuss the integration of interventions at different ecological levels.
22. Decide on methodological issues about effective and sound scientific research on health promotion topics.

#### *Communication*

Students can:

23. Adequately communicate (oral and written) with colleagues (epidemiologists, medical doctors, communication scientists, etcetera) in a multidisciplinary project group.
24. Adequately relay theory, empirical findings, ideas, motives and considerations to colleagues, specialists and lay people (oral and written).

#### *Learning skills*

Students are able to:

25. Find, describe and integrate new developments in the field of health education and promotion, and do so in an efficient and critical way.
26. Reflect on the quality of own and other's research and projects.
27. Develop competencies required for health promotion professionals, based on the competence profile as described above.



## Master's programme Healthcare Policy, Innovation and Management

Dublin Descriptor	Objectives of HPIM
Knowledge and understanding	Students in the master's programme have a wide and multidisciplinary knowledge of the:
	1. Development, implementation and outcomes of innovations in healthcare, considered within their context, at the individual, group or organisational level, regional, national and international level.
	2. Theories and research methods that enable them to analyse and understand the issues raised in the programme.
Applying knowledge and understanding	Students are able to:
	3. Use the gained knowledge and insights for the empirical analysis of the development, implementation and outcomes of innovations in healthcare, considered within their context, at the different levels.
	4. Use the gained knowledge and insights for the development of well-designed solutions and plans to resolve problems in healthcare. The strengths and weaknesses of these solutions are assessed from different perspectives.
Making judgments	5. Relate and integrate the knowledge gained in each unit (in) to the knowledge gained in the other units.
	6. Develop a scientific attitude.
Communication	7. Students form judgments based upon theoretical insights and (sometimes limited evidence from) empirical research on real-world problems in healthcare and the social and ethical aspects of these problems and solutions to the problems.
	8. Students are able to communicate effectively (i.e. clearly and unambiguously) their knowledge, conclusions from their analyses and the underlying rationale to different audiences, both orally and in writing, by having discussions, doing presentations and writing papers on real-life cases in healthcare.
Learning skills	By acquiring the following skills, students will be prepared to continue to study in a self-directed or autonomous way. Students are trained:
	9. To work in a collaborative setting on real-life cases in healthcare.
	10. In the gathering of information and the application of theories and quantitative and qualitative research methods to analyse the issues presented in the units.
	11. To provide theory-based explanations and solutions for issues in healthcare that are critically considered.

## Master's programme Work, Health and Career

### *Knowledge and understanding*

By the end of the Master Work, Health and Career students demonstrate knowledge and understanding of:

1. The ICF framework in relation to health and labour participation across the work career;
2. The principles of evidence based occupational health, regarding aetiology, prevention, intervention strategies and implementation;
3. The structural, organizational and individual level of strategies to promote sustainable work;
4. The legislation on working conditions and occupational health management;
5. The principles of occupational health management in occupational health care and the role of the different stakeholders involved;
6. The barriers and facilitating factors for successful implementation of occupational health care strategies;

7. Theories and findings about:

- a. (determinants of) Health, health behaviour and labour participation, for the general working population and relevant subgroups, including the chronically ill, the aging worker, and the selfemployed;
  - b. Universal, selected and indicated prevention in occupational health care;
  - c. Processes of change concerning the behaviour of individuals, groups and organisations;
  - d. Methods and strategies for initiating and monitoring change at micro, meso and macro levels.
8. Developments in local, regional, national and global (occupational) health policies;
9. The steps and principles of planning models and the Intervention Mapping Protocol and to apply them in the development, implementation and evaluation of interventions;
10. The design evaluations of interventions for health education and promotion;
11. The fundamentals of methodology and ethics related to science;
12. The analysis of data from determinant, intervention and implementation studies, including descriptive analyses, regression analysis, and hypothesis testing.

#### *Applying knowledge and understanding*

By the end of the Master Work, Health and Career students apply knowledge and understanding of:

13. Evidence based determinants of health and labour participation and their classification and ranking according to the ICF framework, and the methods and practical applications to change these determinants;

14. Evidence based preventive measures, intervention strategies and implementation to enhance sustainable work;
15. developing a strategy or intervention, incorporating the perspectives of relevant stakeholders, to enhance sustainable work;
16. the effective implementation of occupational health management in occupational health care;
17. the embedding and implementation of occupational health management and signal potential barriers for implementation;
18. The importance of a multi-level approach in health promotion and occupational health;
19. The Intervention Mapping Protocol to health and labour participation problems, in order to effectively initiate, organize, coordinate, implement and evaluate programmes to promote health and sustainable work;
20. The fundamentals of methodology and ethics related to science into efficient and sound scientific research plans.

#### *Formation of a judgement*

By the end of the Master Work, Health and Career students are able to make judgements about:

21. The evidence base on determinants, on preventive measures and interventions related to health and labour participation, and their implementation, in different settings and contexts;
22. The results of scientific research on occupational health and health promotion topics and to base recommendations on these results, in terms of the level at which a determinant, preventive measure and/or intervention should ideally be tackled and implemented;
23. the ethical and moral dilemmas encountered by the different stakeholders when implementing strategies to enhance sustainable work.

#### *Communication*

By the end of the Master Work, Health and Career students are able to:

24. Apply the ICF framework as an important communication tool;
25. Adequately communicate in a professional way (oral and written) with policymakers, employers and clients in the field of occupational health, both on an individual level, or within a multidisciplinary project group.

#### *Learning skills*

By the end of the Master Work, Health and Career students have acquired the skills to:

26. Judge a health and labour participation problem in terms of ICF;

27. Critically appraise the evidence base on determinants of and interventions related to health and labour participation;
28. perform a needs assessment with respect to health and labour participation and develop an effective strategy to enhance sustainable work;
29. Evaluate (both qualitatively and quantitatively) and advise about occupational health management policies;
30. Find, describe and integrate new developments in the field of occupational health and health education and promotion, and do so in an efficient and critical way;
31. Reflect on the quality of own and other's research and projects.

## APPENDIX 3: OVERVIEW OF THE CURRICULUM

### Master's programme Epidemiology

Period		Weeks	
1-A	Introduction to Epidemiology EPI4900 (2 ECTS)	1	
1-A	Intervention Research EPI4901 (4 ECTS)	3	
1-B	<u>Observational</u> Research EPI4902 (6 ECTS)	4	
2-A	<u>Health Measurement</u> EPI4903 (3 ECTS)	<u>Applied Epidemiology</u> EPI4905 (3 ECTS)	4
2-B	Systematic Literature Review EPI4904 (3 ECTS)	Molecular and Genetic Epidemiology EPI4910 (3 ECTS)	4
3	Writing a Research Protocol EPI4907 (6 ECTS)	Advanced Statistical Analysis Techniques EPI4906 (6 ECTS)	8
4-A			
4-B	Scientific Research EPI4909 (24 ECTS)		16
5			
6			

### Revised programme 2017-2018

Period		Weeks	
0	Introduction to Epidemiology EPI4920 (1 ECTS)		1
1	<u>Observational</u> Research EPI4921 (6 ECTS)	Intervention Research in Health Care EPI4922 (5 ECTS)	8
2	Advanced Statistical Analysis Techniques EPI4923 (6 ECTS)	<u>Clinimetrics</u> : from Biomarkers to Quality of Life EPI4924 (6 ECTS)	8
3	<u>Applied Epidemiology</u> EPI4926 (3 ECTS)	Molecular and Genetic Epidemiology EPI4925 (3 ECTS)	4
4	Writing a Research Protocol EPI4927 (6 ECTS)	Systematic Literature Review & Meta-analysis EPI4928 (6 ECTS)	8
5	Scientific Research EPI4929 (18 ECTS)		8
6			4

### Master's programme Health Education and Promotion

<u>Period</u>			<b>Weeks</b>
1	Understanding Health Behaviour HEP4210 (6 ECTS)	Changing Health Behaviour HEP4211 (6 ECTS)	8
2	Effectiveness of Interventions in Health Promotion Settings HEP4212 (6 ECTS)	<u>Intervention</u> Development HEP4213 (6 ECTS)	8
3	Preparation for Scientific Research HEP4214 (6 ECTS)		4
4	Health Promotion HEP4215 (6 ECTS)	Implementation and Evaluation HEP4205 (6 ECTS)	8
5	Scientific Research HEP4250 (18 ECTS)		8
6			4

### Master's programme Healthcare Policy, Innovation and Management

<u>Period</u>			<b>Weeks</b>
1	Economics of Healthcare HPI4001 (6 ECTS)	Innovation and Quality Management of Health Services HPI4002 (6 ECTS)	8
2	Healthcare Governance, Ethics and Law HPI4003 (6 ECTS)	Patient Logistics in Healthcare HPI4004 (6 ECTS)	8
3	Research <u>Methods</u> HPI4005 (6 ECTS)		4
4	Strategic Management, Leadership and Organisational Change in Healthcare HPI4008 (6 ECTS)	Financial Management of Healthcare Organisations HPI4007 (6 ECTS)	8
5	Scientific research (18 ECTS)		8
6			4



## Master's programme Work, Health and Career

<u>Period</u>	<u>Tuesday</u>	<u>Friday</u>	<u>Weeks</u>
1	Understanding health behaviour HEP4210 (6 ECTS)	Determinants of health and labour participation WHC4001 (6 ECTS)	8
2	Strategies for health protection, disease prevention and re-integration into work WHC4002 (6 ECTS)	<u>Intervention</u> development HEP4213 (6 ECTS)	8
3	Preparation for the scientific research HEP4214 (6 ECTS)		4
4	Occupational health management WHC4003 (6 ECTS)	Implementation and evaluation HEP4205 (6 ECTS)	8
5	Scientific research WHC 4250 (18 ECTS)		8
6			4

## APPENDIX 4: PROGRAMME OF THE SITE VISIT

<b>Maandag 23 april 2018</b>		
9.00	9.30	Aankomst en welkom
9.30	12.00	Vorbereidend overleg en inzien documenten
12.00	12.30	Lunch
12.30	13.15	Gesprek met inhoudelijk verantwoordelijken opleidingen domein Health
13.15	13.30	Overleg panel
13.30	14.00	Gesprek met studenten Bachelor Gezondheidswetenschappen
14.00	14.30	Gesprek met docenten Bachelor Gezondheidswetenschappen
14.30	14.45	Overleg panel
14.45	15.15	Gesprek met studenten Master Epidemiology (ENG)
15.15	15.45	Gesprek met docenten Master Epidemiology
15.45	16.00	Overleg panel
16.00	16.30	Gesprek met studenten Master Healthcare Policy, Innovation and Management (ENG)
16.30	17.00	Gesprek met docenten Master Healthcare Policy, Innovation and Management
17.00	17.15	Overleg
17.15	17.45	Gesprek met alumni Master Epidemiology and Master Healthcare Policy, Innovation and Management (ENG)
18.00	20.30	Diner panel

<b>Dinsdag 24 april 2018</b>		
9.00	10.00	Vorbereidend overleg en inzien documenten (inclusief inloopspreekuur Health [9.30-10.00])
10.00	10.30	Gesprek met studenten Master Health Education and Promotion en Master Work, Health and Career (ENG)
10.30	11.00	Gesprek met docenten Master Health Education and Promotion en Master Work, Health and Career
11.00	11.15	Overleg panel
11.15	11.45	Gesprek met alumni Master Health Education and Promotion en Master Work Health and Career (ENG)
11.45	12.15	Gesprek met Opleidingscommissie Health
12.15	13.00	Overleg en lunch
13.00	13.45	Gesprek Examencommissie Health
13.45	14.30	Overleg panel (afroeden domein Health)
14.30	15.15	Gesprek met inhoudelijk verantwoordelijken Master Health Food Innovation Management
15.15	15.30	Overleg panel
15.30	16.00	Gesprek met studenten Master Health Food Innovation Management (ENG)
16.00	16.30	Gesprek met stafleden Master Health Food Innovation Management (ENG)
16.30	16.45	Overleg panel
16.45	17.15	Gesprek met alumni Master Health Food Innovation Management
18.00	20.30	Diner panel



<b>Woensdag 25 april 2018</b>		
09.00	09.30	Overleg panel
09.30	10.00	Gesprek met Opleidingscommissie HFIM (Venlo) (ENG)
10.00	10.30	Overleg panel
10.30	11.15	Gesprek met Examencommissie Biomedische Wetenschappen HFIM
11.15	13.00	Vorbereiden eindgesprekken (inclusief inloospreekuur HFIM [11.30-12.00] en lunch)
13.00	13.45	Eindgesprek met management Health
13.45	14.00	Overleg panel
14.00	14.45	Eindgesprek met management Master Health Food Innovation Management
14.45	16.35	Opstellen voorlopige bevindingen
16.35	16.45	Wandeling van 6 <sup>e</sup> verdieping naar begane grond (UNS40)
16.45	17.15	Mondelinge rapportage voorlopige bevindingen Health en HFIM (Venlo) (ENG)
17.15	18.30	Receptie Drielandenpunt



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

Prior to the site visit, the panel studied 15 theses (per programme) of the master's programmes Epidemiology; Health Education and Promotion; Healthcare Policy, Innovation and Management; and Work, Health and Career. 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):

### **Master Epidemiology**

- Observational Research 2017-2018 (EPI4921)
  - Course book
  - Tutor instructions
  - Example lectures
  - Assessment plan
  - Test of 24 October 2017
  - Answer-key test of 24 October 2017
  - Example assignment 1
  - Example assignment 2
  - Course evaluation report
  - Report review panel master Epidemiology
  - Response report review panel
- Advanced Statistical Analysis Techniques 2017-2018 (EPI4923)
  - Survey before the course
  - Course book
  - Instructions AN(C)OVA
  - Instructions Repeated Measurements
  - Instructions Linear Regression
  - Instructions Logistic Regression
  - Examples lectures and exercises
  - Assessment plan
  - Training exam
  - Test of 19 December 2017
  - Answer-key test of 19 December 2017
  - Course evaluation report
  - Report review panel master Epidemiology
  - Course report
- Writing a Research Protocol 2017-2018 (EPI4927)
  - Course book
  - Timetable
  - Lectures
  - Workshop power calculation
  - Assessment plan
  - Example research proposal 1st draft
  - Comments on 1st draft research proposal
  - Research proposal 2nd draft
  - Comments on 2nd draft research proposal
  - Research proposal 3rd draft
  - Comments on 3rd draft research proposal
  - Example final research proposal
  - Feedback threads other students
  - Course evaluation report (2016-2017)
  - Evaluation with students (2016-2017)

## **Master Healthcare Policy, Innovation and Management**

- Economics of Healthcare 2017-2018 (HPI4001)
  - Course book
  - Tutor instructions
  - Training manual
  - Grading form group 1 and group 2
  - Example of paper group 14
  - Training manual
  - Examples of grading group 1 and group 2
  - Example of paper
  - Assessment plan
  - Test of 27 October 2017
  - Answer-key test of 27 October 2017
  - Resit-test of 14 February 2018
  - Answer-key resit-test of 14 February 2018
  - Example of a filled-in and reviewed resit-test of 14 February 2018
  - HPIIM specific questionnaire
  - Course evaluation report
  - Feedback for the individual teacher
  - Course report
- Health Systems Governance 2017-2018 (HPI4009, formerly known as HPI4003)
  - Course book
  - Tutor instructions
  - Limits to solidarity: a debate
  - Workshop Negotiations in Health Care
  - Thomas-Kilmann Conflict Mode Questionnaire
  - Explanation Survey of Kilmann
  - Training manual
  - Session 1: Introduction
  - Session 2: Feedback & Instructions
  - Session 3: Plenary Pitch Session
  - Example of portfolio Group 2
  - Assessment plan
  - Information about the test
  - Test of 22 December 2017
  - Answer-key test of 22 December 2017
  - Resit-test of 14 February 2018
  - Answer-key resit-test of 14 February 2018
  - Two examples of a filled-in and reviewed resit-test of 14 February 2018
  - HPIIM specific questionnaire
  - Course evaluation report
  - Course report
- Financial Management 2016-2017 and 2017-2018 (HPI4007)
  - Course book
  - Tutor instructions
  - Project Efficiency (2016-2017): Project manual Business Case Efficiency
  - Project Efficiency (2016-2017): Example of a business case by students
  - Project IT (2016-2017): Project manual business case IT
  - Project MT (2016-2017): Business case - Investments in innovative healthcare technology, project assignment
  - Project MT (2016-2017): Example of business case by group 4
  - Assessment plan 2017-2018
  - Test of 4 April 2017
  - Answer-key test of 4 April 2017
  - Example of a filled-in and reviewed test of 4 April 2017

- Resit-test of 12 July 2017
- Answer-key resit-test of 12 July 2017
- Course evaluation report
- Course report
- General information
  - HPIM brochure (March 2018)
  - Programme career event (Wednesday 7 March 2018)
  - Practical information Career Event for panel members, workshop hosts and alumni
  - Career passport
  - Overview placements, type of organisation and country
  - HPIM Alumni - Overview of job titles, organisations and regions (LinkedIn 19-12-2016)
  - 'Students from Syria complete master of healthcare Policy, Innovation and Management (6 November 2017)
  - Interview with HPIM alumnus Selman Housain
  - Report on calibration sessions master thesis assessment (March 2018)
  - HPIM exam inspection procedure for exams with open questions
  - Double Degree Programme: Agreement between the University of Cologne and Maastricht University (March 2015)
  - Employability Pilot: Presence of employability competencies HPIM (12 February 2017)

### **Master Health Education and Promotion**

- Changing Health Behaviour 2017-2018 (HEP4211)
  - HEP brochure
  - Course book
  - Instruction for mini-lectures
  - Peer-feedback and brief guidelines
  - Example of mini-lectures provided by students
  - Example of summary lecture provided by staff members
  - Example of weekly teacher instructions for mini-lectures
  - Training Writing Health Messages: Training information
  - Training Writing Health Messages: Training assignment
  - Training Writing Health Messages: Final brochure and justification (low (1) and high grade (2) example)
  - Training Writing Health Messages: Assessment forms for the final brochure and justification (1 and 2)
  - Assessment plan
  - Test of 27 October 2017
  - Answer-key test of 27 October 2017
  - Resit-test of 14 February 2018
  - Answer-key test of 14 February 2018
  - Course evaluation report
  - Midterm report course periods 1 and 2
- Intervention Development 2017-2018 (HEP4213)
  - Course book
  - Tutor instructions
  - Slides of Course opening
  - Example of a final group paper (low (1) and high grade (2))
  - Example of student reflection report
  - Evaluation of training by students
  - Example of a regular lecture (illustrating an example from practice)
  - Example of an online lecture
  - Assessment plan
  - Test of 22 December 2017
  - Answer-key test of 22 December 2017
  - Resit-test of 15 February 2018

- Answer-key resit-test of 15 February 2018
- Course evaluation report
- Midterm report course periods 1 and 2
- Implementation and Evaluation 2016-2017 (HEP4205)
  - Course book
  - Tutor instructions
  - Slides Course opening
  - Training 'Our Iceberg is Melting': Training manual and collaboration log for students
  - Training 'Our Iceberg is Melting': Training manual for trainers
  - Training 'Our Iceberg is Melting': Final group paper (low (1) and high grade (2) example)
  - Training 'Our Iceberg is Melting': Assessment forms for the final group paper (1 and 2)
  - Assessment plan 2017-2018
  - Test of 17 April 2017
  - Answer-key test of 17 April 2017
  - Resit-test of 11 July 2017
  - Answer-key resit-test of 11 July 2017
  - Course report

### **Master Work, Health and Career**

- Determinants of health and labour participation 2017-2018 (WHC4001)
  - Course book
  - Tutor instructions
  - Examples of assignments (linked-up with the longitudinal trajectory Occupational Health from a Biopsychosocial Perspective)
  - Assessment plan
  - Test of 27 October 2017
  - Answer-key test of 27 October 2017
  - Example of a filled-in and reviewed test of 27 October 2017
  - Course evaluation report
  - Course report
- Strategies for Health Protection, Disease Prevention and Re-integration into Work 2017-2018 (WHC4002)
  - Course book
  - Tutor instructions
  - Example of portfolio
  - Example of assignments (linked-up with the longitudinal trajectory Occupational Health from a Biopsychosocial Perspective and the Trajectory Communication and Intervention Skills)
  - Assessment plan
  - Test of 27 October 2017
  - Answer-key test of 27 October 2017
  - Course evaluation report
  - Course report
- Occupational Health Management 2017-2018 (WHC4003)
  - Course book
  - Tutor instructions
  - Training Evaluation of Occupational Health Management Policies in Organisations: Training manual, Example of paper by group 2, Example of paper by group 3
  - Training Evidence-based and Evaluation of OHM 1: Effect Evaluation of Occupational Health Interventions: Training manual (linked-up with the longitudinal trajectory Occupational Health from a Biopsychosocial Perspective)
  - Training Multi-party Collaboration: Training manual
  - Examples of portfolio's
  - Assessment plan
  - Test of 4 April 2017
  - Answer-key test of 4 April 2017

Course evaluation report  
Course report

**Programme committee Health and Exam board Health**

Minutes Programme Committee Health (2017)

Assessment policy Faculty of Health, Medicine and Life Sciences – Education domain Health 2017

Annual report 2016-2017 Exam Board Health (December 2017)

Review thesis Domain Health – January 2018