

**RESEARCH MASTER'S PROGRAMME**  
**CLINICAL AND PSYCHOSOCIAL**  
**EPIDEMIOLOGY**

FACULTY OF MEDICAL SCIENCES  
**UNIVERSITY OF GRONINGEN**

QANU  
Catharijnesingel 56  
PO Box 8035  
3503 RA Utrecht  
The Netherlands

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

Project number: Q0670

© 2018 QANU

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



# CONTENTS

<b>REPORT ON THE RESEARCH MASTER'S PROGRAMME CLINICAL AND PSYCHOSOCIAL EPIDEMIOLOGY OF THE UNIVERSITY OF GRONINGEN.....</b>	<b>5</b>
ADMINISTRATIVE DATA REGARDING THE PROGRAMME.....	5
ADMINISTRATIVE DATA REGARDING THE INSTITUTION.....	5
COMPOSITION OF THE ASSESSMENT PANEL.....	5
WORKING METHOD OF THE ASSESSMENT PANEL.....	6
SUMMARY JUDGEMENT.....	8
DESCRIPTION OF THE STANDARDS FROM THE ASSESSMENT FRAMEWORK FOR LIMITED FRAMEWORK ASSESSMENTS.....	11
<b>APPENDICES .....</b>	<b>21</b>
APPENDIX 1: DOMAIN-SPECIFIC FRAMEWORK OF REFERENCE.....	23
APPENDIX 2: INTENDED LEARNING OUTCOMES.....	25
APPENDIX 3: OVERVIEW OF THE CURRICULUM.....	26
APPENDIX 4: PROGRAMME OF THE SITE VISIT.....	27
APPENDIX 5: THESES AND DOCUMENTS STUDIED BY THE PANEL.....	28

This report was finalized on 11 July 2018



# REPORT ON THE RESEARCH MASTER'S PROGRAMME CLINICAL AND PSYCHOSOCIAL EPIDEMIOLOGY OF THE UNIVERSITY OF GRONINGEN

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

## ADMINISTRATIVE DATA REGARDING THE PROGRAMME

### Research master's programme Clinical and Psychosocial Epidemiology

Name of the programme:	Clinical and Psychosocial Epidemiology (research)
CROHO number:	60399
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	120 EC
Specializations or tracks:	-
Location(s):	Groningen
Mode(s) of study:	full time
Language of instruction:	English
Expiration of accreditation:	01/07/2019

The visit of the assessment panel Health Sciences to the Faculty of Medical Sciences of the University of Groningen took place on 21-22 March 2018.

## ADMINISTRATIVE DATA REGARDING THE INSTITUTION

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

## COMPOSITION OF THE ASSESSMENT PANEL

The NVAO approved the composition of the panel on 18 December 2017. The panel that assessed the master's programme Clinical and Psychosocial Epidemiology consisted of:

- Prof. dr. J. (Koos) van der Velden, professor and chair of Public Health at Radboud University [chair];
- Dr. M. (Marinus) Verhagen, lecturer in Human Resource Studies at Tilburg University;
- Prof. dr. W. (Walter) Sermeus, professor in Health Management & Policy at KU Leuven (Belgium);
- Dr. ir. C.D. (Kees) de Gooijer, director of Topconsortium for Knowledge and Innovation Agri&Food and TKI-Biobased Economy;
- Prof. dr. ir. E. (Ellen) Kampman, professor and chair of Nutrition and Disease at Wageningen University;
- Prof. dr. A.W.M. (Andrea) Evers, professor of Health Psychology at Leiden University and member of the Young Academy of KNAW;
- M. (Maarten) Butink, bachelor's student in Health Sciences at Maastricht University [student-member].

The panel was supported by dr. Anna Sparreboom, who acted as secretary.

## WORKING METHOD OF THE ASSESSMENT PANEL

The site visit to the research master's programme Clinical and Psychosocial Epidemiology (CPE) at the University of Groningen is part of the cluster assessment Health Sciences in which seven universities participated: 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). prof. dr. J. (Koos) van der Velden, who acted as vice-chair at six site visits, replaced her as chair for the assessment of the research master programme Clinical and Psychosocial Epidemiology (CPE) at the University of Groningen. Apart from prof. van der Velden, the panel that evaluated the CPE research master's programme consisted of dr. M. (Marinus) Verhagen, prof. dr. W. (Walter) Sermeus, dr. ir. C.D. (Kees) de Gooijer, prof. dr. A.W.H. (Andrea) Evers, prof. dr. ir. E. (Ellen) Kampman and M. (Maarten) Butink (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 research master's programme Clinical and Psychosocial Epidemiology provided a self-evaluation report (SER) with relevant appendices. The secretary checked the report 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 from the total list of 21 theses completed in the 2015-2017 period. 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 research 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 21 March 2018. Prior to the site visit, the panel asked the programme to select representative interview partners for both programs. Some changes to the schedule were agreed upon during the site visit in communication between the programme and the panel.

### *Site visit*

The site visit to the University of Groningen took place from 21-22 March 2018, assisted by a NVAO-certified secretary. All panel members except Andrea Evers were present during the two-day site visit. As communicated to the NVAO by e-mail on 6 March 2018, Andrea Evers was not present during the second day of the site visit, but she prepared the evaluation in the same way as the others, by studying the self-assessment report and a selection of theses and their assessments. She also participated in the preparatory meeting and the interview of the alumni on the first day. After the interview with the alumni, she discussed her questions and preliminary findings with the panel, who made sure that her questions were asked in the interviews on the second day. After the interviews on the second day, she was brought up to date about the answers to her questions, and she was

involved in the discussion about the scores. Like the other panel members, she read and commented on the draft of this report.

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 an 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 programme at the University of Groningen 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

### *Standard 1*

The research master's programme Clinical and Psychosocial Epidemiology (CPE) at Rijksuniversiteit Groningen (RUG) aims to provide research-driven education and takes an interdisciplinary approach to health. It draws on insights and methods from epidemiology, health psychology, psychiatry and public health in order to investigate the role that both biomedical and social factors play in the development, progress and treatment of chronic mental and somatic diseases in the general population and in patient groups.

The panel is enthusiastic about the CPE programme's interdisciplinary profile which connects mental disease and epidemiology, a combination that is extremely relevant in the present-day and future societal context. The intended learning outcomes put a strong emphasis on the development of research skills, which clearly distinguishes this programme from a regular master's programme.

The possibility to register as an epidemiologist upon graduation is another asset of this research master. The panel advises emphasising this exit profile as one of the programme's unique selling points. It suggests tailoring the learning outcomes more explicitly towards epidemiology.

The CPE programme aims to prepare students for a research career, as PhD candidates or in research-oriented positions outside academia. The panel noted that the learning outcomes reflect this aim, but it advises naming the competences, knowledge and understanding that are needed for a successful research career outside academia more explicitly in the intended learning outcomes.

### *Standard 2*

The panel ascertained that the selection procedure is carefully implemented and strictly followed: in the last three years, only 23% to 38% of all applicants were admitted to the program. It concludes that the selection and admission procedures have a positive impact on the programme's progression and completion rates; the incoming students are sufficiently prepared and equipped to complete the programme successfully.

The curriculum is carefully designed and puts a strong emphasis on research. The intended learning outcomes are thoughtfully translated into the courses, and the teaching methods are interactive and in keeping with the learning outcomes. The progression rates and the course evaluations confirm that the curriculum, the teaching-learning environment, and the quality of staff and supervision enable students to achieve the intended learning outcomes.

The panel feels that the *Coaching groups* constitute a rather large part of the curriculum, in contrast to the small component reserved for electives, especially for students who have to take both basics courses. It therefore suggests reducing the number of EC for the *Coaching groups* and adding some to the electives.

The panel noted that students who do not wish to continue as a PhD candidate are given the freedom to follow their interests and are adequately guided during the process. At the moment, however, not many CPE students are interested in a research career outside academia. The panel feels that by presenting the option to prepare for a non-academic research career more prominently, for instance by promoting a set of relevant electives, this path may become more attractive to students. With an increasing number of enrolling students, this gains importance.

The panel ascertained that CPE students are fully integrated in the research context and community of the SHARE institute; master's thesis projects are embedded in ongoing research projects. It supports the management's plan to promote research internships abroad, especially for the Dutch students, because this enables them to broaden their horizons. The teaching staff is of good quality: the majority of all lecturers have their UTQ, and all are tenured researchers, who are teaching research-oriented and research-led courses. The panel appreciates that the management and

teaching staff are actively thinking about internationalisation, in terms of both the content of the curriculum and their ambition to create international classrooms.

#### *Standard 3: Student assessment*

The panel concluded that CPE has a well-developed and innovative vision on assessment, which is carefully translated into policy and successfully implemented in daily practice. The assessment plan records the assessment of the intended learning outcomes of each course. It also describes the procedures that are followed for the design of assessments, the assessment criteria, as well as the individuals who are responsible for the implementation of the assessment policy, which makes it a useful document for all those involved. The panel is fully convinced that the system of assessment effectively safeguards the validity of the assessment.

The reliability of the assessment and the independence of examiners are safeguarded by various measures, such as the use of standardised assessment forms for the theses. The thesis proposal and thesis itself are assessed separately by two independent examiners. The student's supervisor only assesses the student's practical performance during the thesis project (the process). The panel values the effective steps that were taken to improve the reliability of thesis assessments and the independence of the examiners. It also appreciates the programme's efforts in strengthening the formative character of assessment. It is confident that the CPE programme has a good assessment system in place.

The assessment system is supported and continuously improved by the Board of Examiners, which is well-organised, professional and effective. The panel concludes that the BoE not only carries out its formal tasks, but also has a visionary and pro-active approach with regard to identifying and solving potential future problems. A good example was the way in which the BoE spoke about the pitfalls of choosing the form of a scientific article for the thesis project, such as the close involvement and personal interests of the supervisor, which not only makes the assessment less objective but also causes difficulties in assessing the student's individual achievements. The panel commends the BoE for its approach.

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

The master's thesis project is the centrepiece of the CPE program. The panel established that the theses use advanced statistical methods, such as multilevel modelling and network analysis, to answer relevant research questions on the frontiers of clinical psychology, psychiatry and epidemiology. The best theses reached a high level in the design, analysis and presentation of the results; the theses that were marked with lower grades presented some difficulties with regard to connecting theory and the literature or some shortcomings in the description of the data-processing. Other theses would have benefitted from a broader literature review or better structuring of the text. In general, the panel feels that all theses are of a satisfactory level for a research master; they are substantial tests of research competence.

CPE graduates are well-prepared for their future careers: of the last cohorts, 66% of all graduates continued in a PhD position in Groningen or elsewhere in the Netherlands or abroad, the remaining 34% works in appropriate positions in government, public organisations or industry. In addition, more than half of the CPE alumni have published the results of their master's research in important scientific journals, which indicates that the programme succeeds in delivering young researchers who are able to contribute to the research in the field. The panel concluded that the students achieve the intended learning outcomes for the research master.



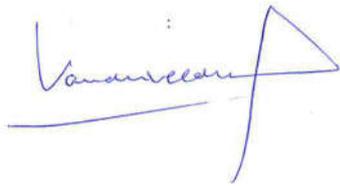
The panel assesses the standards from the *Assessment framework for limited programme assessments* in the following way:

*Research master's programme Clinical and Psychosocial Epidemiology*

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	satisfactory
Standard 3: Student 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: 11 July 2018



---

Prof. dr. Koos van der Velden



---

Dr. Anna Sparreboom

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

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

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

#### **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*

The research master's programme Clinical and Psychosocial Epidemiology (CPE) at Rijksuniversiteit Groningen (RUG) aims to provide research-driven education and takes an interdisciplinary approach to health. It draws on insights and methods from epidemiology, health psychology, psychiatry and public health in order to investigate the role that both biomedical and social factors play in the development, progress and treatment of chronic mental and somatic diseases in the general population and in patient groups. With this interdisciplinary approach, alumni of the programme will be able to investigate health issues that require a broad perspective, such as obesity, well-being in relation to chronic disease, and healthy ageing, which is one of the leading research themes of the University Medical Centre Groningen (UMCG). The panel is enthusiastic about the programme's interdisciplinary profile, not only because it ties in with the UMCG's research theme, but also because it makes a unique connection between mental disease and epidemiology, which is extremely relevant in the present-day and future societal context. This profile gives students an excellent vantage point for setting up and carrying out innovative and relevant research in academia or in research-oriented positions in policymaking, management or consultancy in health-related public or private organizations.

Completion of the CPE programme with a specified set of electives enables graduates to register as epidemiologists with the Netherlands Society of Epidemiology (Epidemioloog A). So although the name of the programme is Clinical and Psychosocial Epidemiology, CPE is not a master's programme in epidemiology per se. Not all graduates can become certified epidemiologists, but those who want to and choose the specified electives can. In order to avoid confusion, the panel suggests changing the name of the programme into, for example, Clinical Psychosocial and Epidemiological Sciences. The possibility to register as an epidemiologist upon graduation is another asset of this research master that the panel advises emphasising as one of its unique selling points.

#### *Intended learning outcomes*

The panel established that the CPE research master's programme at RUG is aligned with the domain-specific framework of reference (DSFR), which stipulates that health scientists are capable of (1) conducting and assessing scientific research, whilst observing its societal and/or clinical relevance and (2) applying the acquired knowledge to several domains in healthcare and related contexts (see Appendix 1 for the DSFR). Specific aspects of the CPE programme are the explicit focus on research and the role of biomedical and psychosocial aspects in the development, progress and treatment of chronic mental and somatic conditions. These foci are translated into five sets of learning outcomes that are formulated according to the Dublin descriptors (see Appendix 2 for the intended learning outcomes). The intended learning outcomes as a whole put a strong emphasis on the development of research skills, which clearly distinguishes this programme from a regular master's programme.



For instance, learning outcome 4 states, '*Students have obtained knowledge and understanding of advanced statistical analysis methods*', and 7, '*Students have obtained the ability to translate a clinical, public health, or behavioral problem into a research question based on knowledge and understanding of evidence-based medicine and theory-guided empirical research*'. The panel concludes that these learning outcomes are in congruence with the level and research-oriented nature of the programme, nationally and internationally.

The CPE programme aims to prepare students for a career in positions that surpass the level of a regular master where independent research is essential, as PhD candidates in academia or in research-oriented positions in policymaking, management or consultancy in health-related public or private organizations. The panel noted that the learning outcomes reflect this aim; for example, learning outcome 17 states, '*Students have demonstrated the ability to plan, develop and conduct fundamental and applied scientific epidemiological research projects in a largely self-directed or autonomous manner*'. These and the other learning outcomes clearly dovetail with the entrance criteria for PhD positions in a national or international context. The panel feels, however, that the competences, knowledge and understanding that are needed for a successful research career outside academia, such as stakeholder analysis, problem oriented research versus academic research, and presenting for non-colleagues or the general public, could be articulated further in the intended learning outcomes.

As noted above, the CPE programme enables graduates who have taken certain electives to register as epidemiologists (Epidemioloog A). In order to develop this exit profile further, the panel suggests tailoring the learning outcomes a bit more towards epidemiology, for instance by including several levels - basic, intermediate and advanced - of knowledge, understanding, competences and skills in that field.

## **Considerations**

The panel is enthusiastic about the CPE programme's interdisciplinary profile which connects mental disease and epidemiology, a combination that is extremely relevant in the present-day and future societal context. The intended learning outcomes put a strong emphasis on the development of research skills, which clearly distinguishes this programme from a regular master's programme.

The possibility to register as an epidemiologist upon graduation is another asset of this research master. The panel advises emphasising this exit profile as one of the programme's unique selling points. It suggests tailoring the learning outcomes a bit more towards epidemiology.

The CPE programme aims to prepare students for a research career, as PhD candidates or in research-oriented positions outside academia. The panel noted that the learning outcomes reflect this aim, but advises naming the competences, knowledge and understanding that are needed for a successful research career outside academia more explicitly in the intended learning outcomes.

## **Conclusion**

*Research master's programme Clinical and Psychosocial Epidemiology*: 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***Admission criteria and intake*

The CPE programme is intended for highly motivated, talented and ambitious students, from the Netherlands and abroad, who are interested in an academic career or a research career outside academia. The programme's admission criteria are: previous education with good results (a bachelor's degree in medicine, biomedical sciences or psychology), sufficient proficiency in English, knowledge of research methodology and statistics on the bachelor's level, and a clear motivation and ambition to conduct research. At the start of the selection procedure, the Admissions Office of the RUG checks all applications for completeness and compliance with the minimum requirements. Subsequently, the Admissions Board will invite the selected applicants for an interview, during which the applicant gives a short research presentation and discusses his or her motivation and expectations of the program. In addition, the candidate has to pass the entrance exam, which tests basic knowledge of statistics. Candidates who meet all of these criteria and have made a good impression during the interview are admitted by the Admissions Board.

The panel ascertained that the selection procedure is carefully implemented and strictly followed: in the last three years, only 23% to 38% of all applicants were admitted to the program. As a result of the improved marketing of the program, nationally and internationally, the number of applicants as well as the number of students who were admitted have increased during the last years; in 2015-16 and 2016-17, the programme had 16 and 19 students, respectively, as opposed to 2 and 5 students in 2013-14 and 2014-15, respectively. The intake is diverse in terms of nationality; about half of the students are from non-European countries such as China, South Korea, Ethiopia, Bangladesh and Brazil. In comparison, the intake of students from European countries other than the Netherlands is still limited, probably because European students do not have the same possibilities to receive scholarships for this programme. The panel agrees with the management that the intake from Europe might benefit from a targeted marketing campaign. During the site visit, students and alumni told the panel that for them the attraction of the programme lies in its interdisciplinary profile, the availability of scholarships (such as the Orange Tulip Scholarship), and the prospect of qualifying for a PhD position and scholarship in the same department upon graduation. The panel was happy to hear that students and alumni feel and felt well prepared and sufficiently equipped to follow the programme and concluded that the strict observation of the selection procedure has had a positive impact.

*Curriculum*

The CPE programme encompasses 120 EC, spread over two years. Depending on the student's previous education, the curriculum starts with a course *Basics in Medicine or Basics in Psychology & Psychosocial factors* (both 8 EC). Students who have a bachelor's degree in Psychology take the course in Medicine; students who have had medical training follow the course in Psychology. Students who did not study either Medicine or Psychology have to take both courses, one as an elective. After that, all students follow the courses *Clinical Epidemiology* (12 EC) and *Psychosocial Epidemiology* (10



EC), which focus on statistical methods and methodology and theories and specific research methods, providing students with the basis that they need to conduct independent research in their master's thesis project.

The period in which the master's thesis project (54 EC) is scheduled runs from March in the first year to May of the second year. It consists of two parts: the design and writing of the research proposal in year 1 (15 EC) and the actual research and writing of the thesis in year 2 (39 EC). Parallel to the work on the proposal, students take courses on research tools, *Scientific Literature* (1 EC) and *Scientific Integrity* (3 EC), and some individually selected electives (11 EC in total). In the second year, parallel to the work on their thesis project, they take the *Project management* course (1 EC) and the rest of their electives. In the last weeks of the programme, after finishing their master's thesis project, students take the *Writing a successful research proposal* course (8 EC), which often builds on the work that they did for their thesis project. Finally, throughout the entire program, students participate in a *Coaching group* (9 EC), and they attend seminars organized by SHARE or the GSMS (3 EC).

The panel examined the study material of three courses in order to obtain an impression of the content of the curriculum. The *Medical Statistics*, the *Coaching groups* and the *Master's thesis project* courses were selected because together they provide a complete picture of the ways in which students are trained to become independent researchers.

The learning outcomes of the *Medical Statistics* course (4 EC) are, firstly, to refresh and deepen basic knowledge of statistical and methodological aspects of the design and evaluation of quantitative health care research projects and, secondly, to carry out statistical analyses using SPSS, with an emphasis on the interpretation and understanding of statistical methods. The panel established that this course is carefully designed, with lectures, assignments, computer classes and an open book exam. From the students' evaluation, it understood that the slides used in the lectures require some updating. The level of the statistics in the course was rather basic in its opinion, which is undoubtedly related to the students' knowledge, as they all have different disciplinary backgrounds. It noted that students who want to reach a more advanced level of statistics can take a more complex course in their elective space. Although this is a sensible solution, it suggests exploring the possibilities to increase the level of the course so that all students benefit.

In the *Coaching groups* course (9 EC) students formulate their own learning objectives and decide which educational activities are relevant to them, in addition to the mandatory topics. During the sessions, they act as chair or secretary, and each student monitors his or her own progress. The coaching groups are supported by scientific coaches who provide tools and organise educational activities if needed. The panel understood that the topics covered in the groups are broad, ranging from writing scientific articles and statistics to research integrity, career orientation and personal development. Students were positive about the student-centred focus in the coaching groups. The panel does not question the importance of the coaching groups, but it feels that with 9 EC, they constitute a rather large part of the curriculum. It therefore suggests reducing the number of EC for the coaching groups and adding some ECs to the electives.

Electives can be followed within and outside the GSMS and UMCG in order to expand and deepen knowledge in the field of the master's thesis project. Because of the students' varying disciplinary backgrounds, the topics of the electives range from evolutionary medicine and advanced health psychology to scientific writing and applied statistics. When students prefer to choose an elective that is not on the list, they have to send in a motivated request to the Board of Examiners, which can deny it if the chosen course does not match the learning outcomes of the programme. Normally, students take 11 EC of electives. However, students who do not have a bachelor's degree in Medicine or Psychology have to take one of the *Basics* courses as an elective, which leaves them with only 3 EC for electives. Adding some EC to the electives, as suggested above, would be beneficial to this group of students because they would have more room to specialise and prepare for their thesis project.

Another benefit of adding some ECs to the electives would be that students who wish to explore the possibilities to work in policymaking or R&D positions in companies could choose electives that are relevant to those fields. There are some examples of students who are broadening their horizon outside academia already; one of the programme's students investigated healthy aging in offshore work, and another thesis project included a written policy advice for the board of a hospital. The panel noted that students are given enough freedom to follow their interests in this respect and are adequately guided during the process, but it feels that by presenting the option to prepare for a non-academic research career and the relevant electives more prominently, this path may become more attractive to students. The final course of the programme, *Writing a successful research proposal*, which is presently aimed at writing PhD proposals, could also provide the option to write an (non-academic) R&D plan. The panel encourages the management to strengthen the programme's orientation to research careers in the non-academic world. Perhaps the Advisory Board, in which some external members (working in industry or public service) should be asked to join, can play a role in this.

The proposal for the master's thesis is written in the first year of the programme, while the actual research is carried out in the *Master's thesis project* (39 EC) in the second year. The thesis project encompasses all phases of the empirical circle: making an overview of the relevant literature, the selection of research questions and methodology, data analysis and interpretation of results, and the presentation (written and oral) of the results. Because some research questions require the use of large data sets, it is not always feasible for students to collect their own data. The panel verified that in those cases, the student and supervisor arrange for the student to still contribute to the data collection, for instance by pre-processing and managing part of the data or by setting up a pilot study. In this way, all students are actively involved in either data collection or data management, pre-processing or pilot studies, so that they complete the full empirical cycle.

The panel concluded that the curriculum is carefully designed and puts a strong emphasis on research. All 17 intended learning outcomes are translated and specified into one or more learning outcomes for each course. The teaching methods of the courses are in keeping with the learning outcomes and vary from lectures, workshops and demonstrations to discussion groups, presentations, interactive work groups and exercises with published scientific papers. Students told the panel that they work hard, sometimes up to 50 hours per week in the second year, but experience no bottlenecks in the curriculum. The progression rates confirm that the curriculum, the teaching-learning environment and the quality of staff and supervision enable students to achieve the intended learning outcomes.

#### *Research context and teaching staff*

The CPE research master's programme is embedded in the Graduate School of Medical Sciences (GSMS), which is part of UMCG and RUG and is closely associated with the UMCG's SHARE institute (Sciences in Healthy Ageing and healthcaRE). Within SHARE there are four research programmes, which focus on themes such as life course epidemiology of chronic diseases, the relation between health and work participation, adaptation to disease, and the relation between mental problems and physical and biological factors. These research programs received very good to excellent scores in the previous research review.

The lecturers in the CPE research master's programme are recruited from the research staff of the SHARE institute. All teaching staff are tenured as full, associate or assistant professors and are active researchers with a track record in a clearly identified research theme. As prescribed in the university's policy, the majority of lecturers have a University Teaching Qualification (BKO Dutch), while the rest of them are working on qualifying and are expected to receive the UTQ within two years. The panel verified that the courses that they teach are research-oriented and filled with examples from their own research projects. It understood that students are generally satisfied with the quality of their teachers and especially with the close supervision during their master's thesis project. During their master's thesis project, CPE students are embedded in one of SHARE's research groups: they receive



a desk in the department where their supervisor works, and their master's thesis project is often related to or part of an ongoing research project. Students noted that most of the time, their supervisors were literally next door and available to answer questions. In addition, students can turn to the study advisor and to the coach of their coaching groups when they have questions or experience any difficulties. The panel is also positive about the availability of the statistics department for CPE students and the fact that exchange between students and PhD candidates is facilitated and encouraged within the research groups. It appreciates that students are encouraged to attend research meetings within the department and seminars organized by SHARE. It established that the context in which CPE students are trained is clearly academic and 'breathes research'.

Although the panel finds the way in which students are embedded in SHARE's research groups very valuable, it thinks that it would be beneficial for them if they could also broaden their perspective, for instance during a brief internship in a research group outside of Groningen or even outside of the Netherlands. It is enthusiastic about the management's plan to explore the possibilities to offer research internships abroad, building on the collaborations and networks of the principal investigators at RUG. It agrees, however, that conducting a research internship outside of the Netherlands should not be compulsory, especially for the non-Dutch students in the programme, who already have international experience.

The panel noted that the management and teaching staff are actively thinking about internationalisation. The students in the programme are international, but there are more aspects to consider. The programme aims to integrate more international examples in the courses, such as international perspectives on concepts in health psychology. There are also international classroom focus groups with students and teaching staff in which topics such as different learning and communication styles and the Dutch grading system are discussed. The panel appreciates and encourages these activities.

## **Considerations**

The panel ascertained that the selection procedure is carefully implemented and strictly followed: in the last three years, only 23% to 38% of all applicants were admitted to the program. It concludes that the selection and admission procedures have a positive impact on the programme's progression and completion rates; the incoming students are sufficiently prepared and equipped to complete the programme successfully.

The curriculum is carefully designed and puts a strong emphasis on research. The intended learning outcomes are thoughtfully translated into the courses, and the teaching methods are interactive and in keeping with the learning outcomes. The progression rates and the course evaluations confirm that the curriculum, the teaching-learning environment, and the quality of staff and supervision enable students to achieve the intended learning outcomes.

The panel feels that the *Coaching groups* constitute a rather large part of the curriculum, whereas the electives make up only a small component, especially for students who have to take both basics courses. It therefore suggests reducing the number of EC for the *Coaching groups* and adding some to the electives.

The panel noted that students who do not wish to continue as a PhD candidate are given the freedom to follow their interests and are adequately guided during the process. At the moment, however, not many CPE students are interested in a research career outside academia. The panel feels that by presenting the option to prepare for a non-academic research career more prominently, for instance by promoting a set of relevant electives, this path may become more attractive to students.

The panel noted that CPE students are fully integrated in the research context and community of the SHARE institute; master's thesis projects are embedded in ongoing research projects. It supports

the management's plan to promote research internships abroad, especially for the Dutch students, because this enables them to broaden their horizons. The teaching staff is of good quality: the majority of all lecturers have their UTQ, and all are tenured researchers who are teaching research-oriented and research-led courses. The panel appreciates that the management and teaching staff are actively thinking about internationalisation, in terms of both the content of the curriculum and their ambition to create international classrooms.

### **Conclusion**

*Research master's programme Clinical and Psychosocial Epidemiology:* 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**

#### *The system of student assessment*

The CPE programme has an assessment plan that is in line with the policy of the Faculty and the University. The programme sees testing and assessment as important steering mechanisms in education. Three principles are followed: 1. Students know what will be tested and how to prepare for this; 2. A range of assessment methods is used, in alignment with the learning outcomes; and 3. The planning of the assessments enables students to prepare well for each test, thus reducing the need for resits. The panel thinks that these are very valuable points of departure.

The programme's vision on assessment has been successfully translated in both policy and practice. The assessment plan records the procedures that are followed for the design of tests and the assessment criteria, as well as the individuals who are responsible for the implementation of the policy, which makes it a useful document for all those involved. The panel ascertained that the types of assessment vary from written assignments, open book exams, practical assignments and oral presentations to reflection reports and formative evaluation of academic skills. It appreciates the careful way in which the learning outcomes and their assessment in the different components of the curriculum are described in the assessment plan and implemented in the courses.

Students can find information about the assessment of each course in the Teaching and Examination Regulations and mock exams on the Blackboard system NESTOR. They confirmed that they are happy with the assessment system: they know what will be tested and how to prepare, and they don't experience any difficulties with regard to the planning of the assessments. The panel is convinced that the assessment system safeguards the validity of the assessment; the assessments are in line with the intended learning outcomes and the modes of instruction in the different classes.

The Master's Thesis Project consists of two parts that are evaluated separately: the proposal (15 EC) and the project itself (39 EC). The final grade for both components is based on the grades for the written text and the oral presentation; the process is also assessed for the thesis. The panel read a sample of 15 theses and generally agreed with the grades given by the examiners; it found no theses that were of inadequate quality. In order to increase the reliability of the assessment, the thesis proposal and the thesis itself are now assessed separately by two independent examiners (from September 2017). The student's supervisor only assesses the student's practical performance during the thesis project (process). Standardised assessment forms are used to provide feedback on the



students' performance in different phases of their project. The standardised forms also ensure that different examiners use the same criteria for the assessment. The panel understood that rubrics will be added to these forms in the near future so that the students will have even more insight into their development, thus strengthening the formative character of the assessment. It appreciates the measures that are being taken to safeguard the reliability of the assessment and to strengthen its formative character. It concludes that the CPE programme has a good and professional assessment system in place.

#### *The Board of Examiners*

The assessment system is supported and continuously improved by the visionary and pro-active Board of Examiners (BoE). The BoE of the CPE programme is well organised and has effective working methods: it monitors the results of examinations per cohort, academic year and students and also evaluates the assessment on the programme level, thereby paying specific attention to the alignment of intended learning outcomes and assessment. The BoE evaluates the quality of the master's theses and their assessment in a targeted sample every year. In addition, the BoE approves electives, appoints examiners, and evaluates and advises on the improvement of the assessment plan on the basis of course evaluations and their expert knowledge.

The panel concluded that the BoE not only carries out its formal tasks, it also has a visionary and pro-active approach with regard to identifying and solving potential future problems. A good example was the way in which the BoE spoke about the pitfalls of choosing the form of a scientific article for the thesis project, such as the close involvement and personal interests of the supervisor, which not only makes the assessment less objective but also causes difficulties in assessing the student's individual achievements. The fact that the BoE's advice often leads to changes in the procedures, for instance with regard to the appointment of two independent examiners for the theses and the introduction of rubrics, underlines that the BoE is pro-active and effective and that the CPE programme is run by a professional and self-critical organisation.

#### **Considerations**

The panel concluded that CPE has a well-developed and innovative vision on assessment, which is carefully translated into policy and successfully implemented in daily practice. The assessment plan records the assessment of the intended learning outcomes of each course. It also describes the procedures that are followed for the design of assessments and the assessment criteria as well as the individuals who are responsible for the implementation of the assessment policy, which makes it a useful document for all those involved. The panel is fully convinced that the assessment system safeguards the validity of the assessment.

The reliability of the assessment and the independence of the examiners are ensured by various measures, such as the use of standardised assessment forms for the theses. The thesis proposal and thesis itself are assessed separately by two independent examiners. The student's supervisor only assesses the student's practical performance during the thesis project (process). The panel values the effective steps that have been taken to improve the reliability of thesis assessments and the independence of the examiners. It also appreciates the programme's efforts in strengthening the formative character of assessment. It is confident that the CPE programme has a good assessment system in place.

The assessment system is supported and continuously improved by the Board of Examiners, which is well organised, professional and effective. The panel commends the BoE for its visionary and pro-active approach with regard to identifying and solving potential future problems.

#### **Conclusion**

*Research master's programme Clinical and Psychosocial Epidemiology:* 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***Master's thesis projects*

The master's thesis project (54 EC), consisting of the thesis proposal (15 EC) and the thesis project itself (39 EC), is the centrepiece of the CPE program. In the proposal, the student has to pay attention to the theoretical, clinical or societal relevance of the proposed research and describe the design of the study, the data collection methods, and the statistical methods that are going to be used to analyse the data. This component of the curriculum also includes peer-reviewing the proposal of a fellow student and writing a rebuttal in response to the reviews of their own proposal. The work on the thesis project itself encompasses all aspects of the empirical cycle: carrying out the research using advanced statistical analyses, describing the results in a scientific way, and presenting and defending the results during a scientific symposium. When students work with existing datasets, they are expected to contribute to the pre-processing and management of the data. Others agree to set up a pilot study within a larger research project.

The panel read a sample of 15 theses, with final grades ranging from 6.5 to 9 (on a 10-point scale). It established that the theses use advanced statistical methods, such as multilevel modelling and network analysis, to answer relevant research questions on the frontiers of clinical psychology, psychiatry and epidemiology. The best theses achieved a high level in the design, analysis and presentation of the results; the theses with lower grades presented difficulties with regard to connecting theory and the literature or shortcomings in the description of the data-processing. Other theses would have benefitted from a broader literature review or better structuring of the text. In general, the panel feels that all theses are of a satisfactory level for a research master; they are substantial tests of research competence. The fact that more than half of the CPE alumni who graduated between 2012 and 2016 have published the results of their master's research in articles in scientific journals that are ranked among the top 25% in the field is impressive and indicates that the programme prepares them well for a research career. The panel thus concluded that the students achieve the intended learning outcomes for the research master.

*The performance of graduates*

Of the last 6 cohorts of alumni, 66% continued in a PhD position, many of them in the UMCG, often in the same field and research group where they conducted their master's thesis project. Others took up a PhD position in other universities in the Netherlands or abroad (for instance, Michigan State University and the University of Münster). Those who did not continue with a PhD (34%) also took up appropriate positions in the field, for example as policy advisor at a local public health service (GGD) or healthcare consultant at Philips Medical Systems. The alumni whom the panel spoke to confirmed that the CPE programme prepared them well for their future careers.

The panel suggests that the management could invite alumni who work in non-academic positions to contribute to the career orientation of current students and to think about the connection of the CPE programme to non-academic research positions, along with the Advisory Board. It was glad to hear that the management already has plans for setting up a digital platform (the Enrich project) in order to keep track of alumni and invite them to contribute to career orientation.

**Considerations**

The master's thesis project is the centrepiece of the CPE program. The panel established that all theses in the sample are of a satisfactory level for a research master; they are substantial tests of research competence.

CPE graduates are well prepared for their future careers: of the last cohorts, 66% continued in a PhD position in the Netherlands or abroad, while the remaining 34% works in appropriate positions in the government, public organisations or industry. More than half of the CPE alumni have published the results of their master's research in important scientific journals, which indicates that the programme succeeds in delivering young researchers who are able of contributing to the research in the field. The panel concluded that students achieve the intended learning outcomes for the research master.

### **Conclusion**

*Research master's programme Clinical and Psychosocial Epidemiology*: the panel assesses Standard 4 as 'satisfactory'.

## GENERAL CONCLUSION

The panel assesses Standard 1, 2 and 4 as 'satisfactory' and Standard 3 as 'good'.

### **Conclusion**

The panel assesses the *research master's programme Clinical and Psychosocial Epidemiology* 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<sup>1</sup> 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>2</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 focussing 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 social (clinical) relevance of research, as well as developing a vision on the occupational and working field, society and research itself are important here.

---

<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.



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 specialise 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

Students have obtained knowledge and understanding of:

- 1 General knowledge of chronic diseases (including psychiatric diseases), psychology and psychosocial factors, and public health issues and approaches;
- 2 General epidemiological and psychosocial aspects of chronic diseases and more detailed knowledge in the area of the student's Master thesis;
- 3 The different study designs and methods of data collection in population-based research, including ethical aspects.
- 4 Advanced statistical analysis methods;
- 5 General research skills;
- 6 Important contemporary issues in clinical and psychosocial epidemiology and of important issues in the area of the practical research project.

Students have obtained the ability to:

- 7 Translate a clinical, public health, or behavioral problem into a research question based on knowledge and understanding of evidence-based medicine and theory-guided empirical research;
- 8 Choose and apply appropriate research designs, methods of data collection and statistical methods to analyze the research data, and to derive causal inferences;
- 9 Assess, analyze and interpret behavioral utilities used in clinical and psychosocial epidemiology research, including psychosocial consequences of illness (for example quality of life), psychological characteristics, and qualitative interviews.

Students have gained:

- 10 Expertise and experience with the integration of theory and empirical research, and in the entire research process.

Students have demonstrated the ability to:

- 11 Interpret the validity of the results and the strengths and weaknesses of their own and other's epidemiological research, based on the current perspective of science, social values and professional ethics;
- 12 Reflect on the social and ethical responsibilities linked to the application of their knowledge and judgements in health issues.
- 13 Report and orally present and discuss the scientific results, to scientific and other audiences, supporting the conclusions with an understanding of current issues and recent developments in clinical and psychosocial epidemiology;
- 14 Actively participate in a research discipline, including the academic debate.

Students have demonstrated:

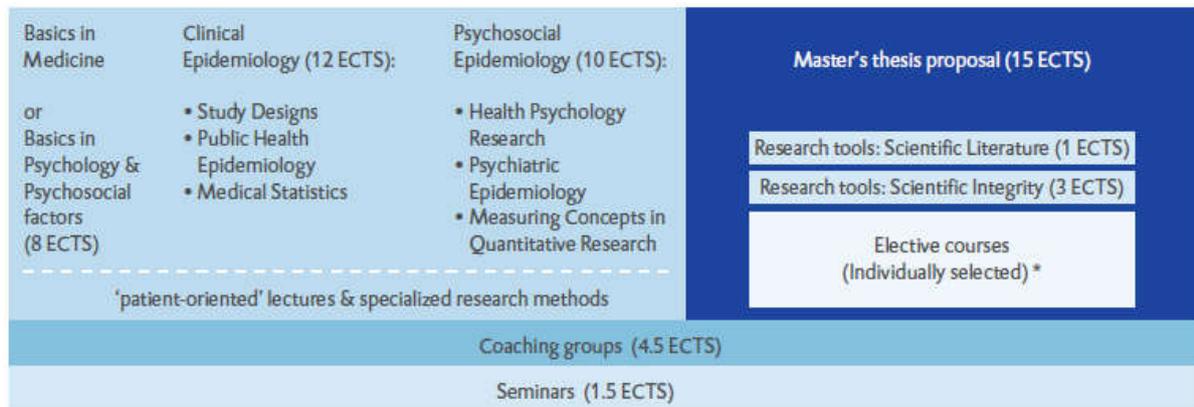
- 15 The ability to plan, develop and conduct fundamental and applied scientific epidemiological research projects in a largely self-directed or autonomous manner by means of the achieved learning outcomes 7 to 10;
- 16 The ability to formulate a research proposal independently;
- 17 A general work orientation that is required for membership of a research team, contributing to collective goods, time management, and participating in a research network.

The relationship between the different curriculum components and the general learning outcomes are summarized in the following table. The CPE programme is an integrated programme where the students progressively learn to become an independent researcher and are able to show all the attributes that are required for this profession. After the CPE programme the students should be able to start their own PhD research project.



## APPENDIX 3: OVERVIEW OF THE CURRICULUM

### Year 1



### Year 2



\* Elective courses: total study load 11 ECTS

Course descriptions: [www.rug.nl/ocasys](http://www.rug.nl/ocasys)

## APPENDIX 4: PROGRAMME OF THE SITE VISIT

<b>Day 0 21 March 2018</b>		
15.15	15.30	Arrival panel
15.30	17.30	Preparatory panel meeting
17.30	18.00	Interview alumni
18.30	21.00	Diner panel
<b>Day 1 22 March 2018</b>		
8.30	9.00	Internal panel meeting; consultation hour
9.00	9.30	Interview management
9.30	9.45	Break
9.45	10.30	Interview students
10.30	11.15	Interview teachers
11.15	11.30	Break
11.30	12.15	Interview Board of Examiners
12.15	12.45	Interview Educational Committee
12.45	13.45	Lunch & preparation management meeting
13.45	14.15	Meeting management (board)
14.15	15.00	Discussion findings and scores
15.00	15.15	Presentation findings
15.15	15.30	Break
15.30	16.30	Development dialogue
16.30	17.30	Callibration session *
17.30		Departure

\* present: Janke Cohen-Schotanus, Koos van der Velden, Marinus Verhagen, Kees de Gooijer, Walter Sermeus, Maarten Butink, Anna Sparreboom.

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

Because of privacy regulations, the list of studied theses can be provided by the project manager 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):

- Course manuals, assessment material, supervisors guide and student guide of the selected courses; *Medical Statistics, Coaching groups* and the *Master's thesis project*;
- the Assessment Plan, tests of the selected courses and standardised assessment forms;
- the Annual Report and minutes of the Programme Committee and the Board of Examiners;
- Course evaluations 2016-17;
- Teaching and Examination Regulations.