Erasmus MC

Netherlands Institute for Health Sciences

Study Guide 2022-2023

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Word of welcome

Welcome to the Netherlands Institute for Health Sciences (NIHES); and in addition to the international students: welcome to the Netherlands!

We are delighted you have chosen NIHES to study for your Master in Health Sciences or Clinical Research, or for the Postgraduate programme. Over the past years many young and talented students, researchers and health professionals from around the world have preceded you. They have benefited from our challenging international research and study environment, which you are now about to experience for yourself.



At NIHES, we owe our broad, international scientific network to the collaboration between our constituent members and to the partnerships with leading universities abroad. This network gives us a faculty of highly successful experts with outstanding academic credentials. It is an honour to have leading international scientists lecture and participate in our research programmes.

This practical guide will help you find your way around and take full advantage of our network. We recommend you get acquainted with the international community of health scientists, explore ongoing research at the Erasmus MC, exchange ideas with your fellow students and faculty and, last but not least, enjoy yourself!

The entire NIHES staff sincerely wishes you a valuable and inspiring time at the Netherlands Institute for Health Sciences.

Professor Myriam Hunink, MD PhD Director of NIHES

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1. Studying at the Netherlands Institute for Health Sciences

1.1 Introduction

The Netherlands Institute for Health Sciences (NIHES) is a collaboration of <u>eight research departments</u> and <u>four affiliated</u> <u>research departments</u> at Erasmus University Medical Centre Rotterdam and affiliated partners sharing their specialised knowledge in quantitative medical and health research.

These departments and sections offer a range of research and training programmes in nine key disciplines:

- Epidemiology
- Clinical Epidemiology
- · Genomic & Molecular Epidemiology
- · Public Health Epidemiology
- · Medical Psychology
- Biostatistics
- Health Decision Sciences & Technology Assessment
- Clinical Research

Furthermore, NIHES closely collaborates with other Research Master programmes at Erasmus MC in the recently established Erasmus MC Graduate School.

NIHES offers Master of Science degree programmes, a Postgraduate Programme and short courses. Our short courses attract researchers and health professionals from all over the world. In addition, NIHES annually organizes the Erasmus Summer Programme in collaboration with Erasmus MC. Detailed information about the programmes, courses, and application and admission procedures can be found on www.nihes.com. Because these courses are also part of our degree programmes, you will be sharing most classes with external participants.

This study guide informs prospective Master students (Master of Science and Research Master) and Postgraduate students about the general rules of NIHES and gives them detailed information about the Master degree programmes and the Postgraduate Programme they are interested in. Information for current students can be found in our digital learning environment Canvas.

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1.2 Programmes

The NIHES Master of Science-programmes have been accredited by the Accreditation Organisation of the Netherlands and Flanders (NVAO) and registered in the Dutch Central Register for Higher Education Programmes (CROHO). The Postgraduate Programme is recognized by Erasmus University Rotterdam, but is not registered in the CROHO. The following table shows a short summary of the programmes offered at NIHES. More in-depth information about all programmes can be found in chapters 3-6.

	Programme	Duration	EC	Requirements	Majors	СКОНО
MSc in Health Sciences	Full-time or part-time (MSc HS)	1 year (full- time) or longer (part- time)	70	Master's degree, relevant research experience	 Epidemiology Clinical Epidemiology Genomic & Molecular Epidemiology Public Health Epidemiology Biostatistics Medical Psychology Health Decision Sciences & Technology Assessment 	75042
Research Master in Health Sciences	Health Sciences (RM HS) Health Sciences + Medicine	2 years 4 years (combined)	120	Bachelor's degree, no research / work experience Medical students Erasmus MC	Epidemiology Clinical Epidemiology Genomic & Molecular Epidemiology Public Health Epidemiology Biostatistics Medical Psychology Health Decision Sciences & Technology Assessment	60120
Research Master in Clinical	Clinical Research (RM CR)	2 years	120	Bachelor's degree, no research / work experience	n/a	60312
Research	Clinical Research + Medicine	4 years (combined)	120	Medical students Erasmus MC		
Postgraduate		1 year	70	Master's degree, pre-PhD	 Key disciplines Epidemiology Clinical Epidemiology Genomic & Molecular Epidemiology Public Health Epidemiology 	

2. General Information

This chapter gives general information about courses, research, communication, and examination procedures and rules. Go to chapters 3 to 6 to find specific information about your programme (see <u>table of content</u>).

2.1 Course information

In this section, general information concerning the courses is described. Note that NIHES has implemented a revised curriculum starting in the 2021-2022 academic year, which means that information on courses and assessment will differ from the information presented in study guides published for the 2020-2021 academic year and earlier.

2.1.1 Programme setup

The three NIHES master programmes have a similar setup. These programmes start with a number of required courses that cover the basics of study design, biostatistics and epidemiology, creating a base for your further elective courses and research work. The required courses take place in the Erasmus Summer Programme and the fall semester, and are concluded with a core competences exam. After this first semester of required courses, students follow a highly personalized programme consisting of elective courses, lifelong learning skills courses, and research work. A complete breakdown of all required courses and available space for elective courses for each programme can be found in chapters 3-6.

In the Master of Science in Health Sciences (70 EC) and the Research Master in Health Sciences (120 EC) programmes, students have the choice to select a major based on the topic of their research project. A list of majors offered in each programme can be found in paragraph 1.2 and in the programme-specific information in chapters 3 and 4. Students will discuss their preliminary choice of major and research interest during a meeting with one of the Associate Programme Directors in their first semester. There are no additional required courses for the majors, but each major does have a number of recommended courses that provide the students with the right tools for their specific research. These recommended courses can be found in Annex III. The choice of major remains preliminary until the assessment of the research project, when the final major is confirmed. Choosing a major is not required.

Note that the Postgraduate Programme has a different setup with only a limited number of required courses and a stronger focus on research work. More information about this programme and its four key disciplines can be found in chapter-6.

2.1.2 Courses

In each NIHES programme, the following categories of courses and programme components are distinguished. More information about each category is provided in the following paragraphs.

- **Erasmus Summer Programme:** this three-week programme in August is open to health professionals worldwide. Courses featured in the Erasmus Summer Programme (ESP) are recognizable by their course code starting with ESP. All NIHES programme students start with a compulsory selection of courses offered during the ESP, while subsequent Erasmus Summer Programmes offer room for elective courses.
- **Core courses**: the courses and programme components which are equal for all students within your Master programme. These courses are recognizable by their course code starting with CK.
- **Electives**: courses which can be chosen and used to tailor your programme. Each major has a number of recommended electives. The elective courses have a course code starting with EL.
- Lifelong learning skills: all NIHES Master programmes contain a number of required overarching skills courses.
 The Research Master programmes also contain elective skills courses. The lifelong learning skills courses have a course code starting with LLS.
- Research: the research project is a major component in all NIHES programmes. The course code for this programme
 component differs depending on your study programme.

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Regular class times throughout the year are typically from 10:00 - 13:00 and 14:00 - 17:00, although this can differ between courses. Usually, ESP class times are from 8:45 - 11:45 and 13:00 - 16:00, 17:00 or 18:00.

The programmes have a full-time workload, meaning you can expect to spend around 40 hrs/week on your studies.

2.1.2.1 Erasmus Summer Programme

The Erasmus Summer Programme (ESP) is a three-week programme in August, open to health professionals worldwide. Over 500 participants attend each year. All NIHES programme students start with a compulsory selection of courses offered during the ESP, where you will thus be sharing courses with health professionals with various backgrounds and specialisations. You will get a comprehensive, up-to-date introduction to the principles and methods of applied quantitative research in medicine and health care. The key areas are biostatistics, clinical research, epidemiology, human genetics and health services, and public health research. Your introductory ESP programme consists entirely of required courses, while the ESP in following years provides room for elective courses.

2.1.2.2 Core courses

Following the first Erasmus Summer Programme, the Master students continue their programme with a number of core courses that cover the basics of study design, biostatistics and epidemiology. An introductory bonding & belonging week is organized between the ESP courses and the first fall course. This week does not have a full time programme, but does contain some programme elements with compulsory attendance. It is therefore important to keep in mind that you are expected to be available to follow courses starting in August.

The core courses create the base for your further elective courses and research work, and provide you with the core knowledge an Epidemiologist should have. The courses themselves contain assessment focused on applying your newly learned knowledge and skills. Additionally, the core topics of these courses are assessed in the combined core competences exam (CK070) in order to stimulate you to combine the knowledge of different topics and to ensure you have a lasting understanding of the core topics of our field. This core competences exam is a requirement for students in our master programmes starting in 2021. It is organized twice a year, at the start of January and at the end of the academic year. Students should have completed all core courses before taking the core competences exam, with the exception of CK080 (Core competences video, only applicable to Research Master students).

Before the start of your study programme you will be granted access to the course Review of Mathematics and Introduction to Statistics (CK001). You are required to complete this self-paced course before the start of Biostatistics I (CK020) in the fall semester, as it serves as a preparation for all biostatistics courses.

A detailed list of the core courses can be found in chapters 3 to 5. Note that the Postgraduate Programme only contains a number of required courses in the Erasmus Summer Programme. Students in this programme are not required to complete the core competences exam (CK070).

2.1.2.3 Electives

The elective courses are meant to tailor your programme to your interests and professional needs. They take place in the winter and spring terms and in your follow-up Erasmus Summer Programme(s) in the month of August. Electives can be chosen from the ESP and NIHES courses in winter and spring. Each major has a number of recommended elective courses that may be useful for your research. The exact number of credits open for electives can be found in the relevant programme overview (chapters 3-6), a list of the recommended elective courses per major can found in Annex III. Students are allowed to exceed the amount of elective EC points by either 2.8 EC (120 EC programmes) or 1.4 EC (70 EC programmes).

Registration for the elective courses in Winter and Spring takes place in the prior Fall semester. Registration for the elective courses in the ESP is open around April. The final course list and necessary information about the registration

procedures will be published in General Information in <u>Canvas</u>. If you wish to take elective courses at other schools or institutes, you will be able to find more information about the requirements and procedure in Canvas.

2.1.2.4 Lifelong Learning Skills

NIHES students are also offered a range of more overarching skills courses. The subjects of these lifelong learning skills courses range from scientific integrity to leadership skills. All master programmes contain a number of required lifelong learning skills courses. In addition, students in the Research Master programmes are required to choose 1 EC point in elective lifelong learning skills courses. The lifelong learning skills courses are assessed in a combined portfolio (see paragraph 2.4.1). More information about the registration for these elective courses will be published in General Information in Canvas.

2.1.3 Course attendance

Depending on the course, attendance (or attendance on certain course days) may be compulsory. Specific information per course will be given in Canvas. A student should register their attendance on all course days of their courses. During the course, attendance will be registered digitally through Academy Attendance. More information about mandatory attendance can be found in paragraph 2.4.1.

2.1.4 Course evaluations

It is important to us to give all of our students a voice and listen to their feedback. After all, you are why we do what we do! This is why, at the end of each course, students are required to fill out an evaluation form about that course. We have made the evaluation mandatory to avoid selection bias in the outcomes and to make sure every student is heard. Although we are able to see which students have filled out the questionnaires, we are not able to see which answers came from which student. This anonymity ensures that students can feel free to speak their minds. Students will receive an email from our evaluation system EvaSys with a link to the digital evaluation form after each course. They have six weeks to complete the form.

2.1.5 Course materials

Most course materials are included in the NIHES tuition fee and will be made available in Canvas. Additional book and literature recommendations can be found on the NIHES website and in Canvas.

2.1.6 Software

Students and employees at Erasmus University Rotterdam and Erasmus MC can buy software such as SPSS and Microsoft Office at a discount, via www.surfspot.nl.

2.1.7 Cancelling your participation in a course

If you are unable to attend a course, please notify the NIHES programme officers at the Educational Service Centre by email (<u>nihes@erasmusmc.nl</u>) at least two weeks before the start of the course.

2.1.8 Course exemptions

To be exempted from a course (or courses), you must send a formal written request to the examination board two months before the start date of the course at the latest. Your request should include the following:

- 1. The title(s) of the course(s) you wish to be exempt from;
- 2. Per course a list of corresponding courses you already successfully passed in a previous programme at Master level, including course descriptions and literature used.

Note that exemptions can only be granted for full courses, not for individual assignments or exams. Please send your request to the Examination Board, (email: examinationboard@erasmusmc.nl) mentioning your student number. Please note that all information should be in English.

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2.2 Research

The NIHES programmes are characterized by a strong emphasis on research projects. NIHES covers a broad and varied range of research, from major neurological and cardiovascular diseases to the endocrine determinants of diseases; from paediatric studies to end-of-life decisions in medical practice; and from the social determinants of health and disease to the side effects of drugs. Below you find the general rules that apply to the research projects. Further information about your research project is available for students through Canvas, where you will find a page dedicated to the specific details of the research project for your study programme.

2.2.1 Choosing your research subject

In the Fall semester of your first year you will discuss your research interests in a meeting with an Associate Programme Director. We strongly advise you to take a look at the Research Themes guide available on the NIHES website in preparation. During this meeting (Research) Master in Health Sciences students will also discuss their preliminary major. Based on the meeting, (Research) Master in Health Sciences students and Postgraduate students will be assigned a personal supervisor, while Research Master in Clinical Research students will be assigned an advisor from the Clinical Research Advisory Board, who in turn finds them a suitable supervisor.

Please note for all Master students: you can only start your research project after you successfully attended all compulsory courses of the first semester. NIHES PhD candidates in the 70 EC programme are exempt from this rule.

2.2.2 Supervision

2.2.2.1 Supervisor

You will work on your research project under the guidance of the personal supervisor assigned to you. The primary tasks of the supervisor are to support and supervise you during your research phase, to give you feedback and to assess your work (elaborated on in Canvas). Your supervisor will also arrange a workspace for you. More information on the role of the supervisor in your research process can be found in the supervisor guide, available on the NIHES website and in Canvas.

All supervisors are senior faculty members at Erasmus MC or Erasmus University Rotterdam with an appointment of at least 0,4 fte at Erasmus MC. Each supervisor has considerable experience (at least PhD level) in one or more specific research subjects. You will also work with a junior supervisor, with whom you will be in contact more frequently and who will supervise you more directly on your research project.

After you send your resume to your intended supervisor, it is up to your supervisor and you to arrange further collaboration. Once your supervisor has been assigned, you can only change supervisors during your research process with permission from NIHES.

The research guidance for Research Master in Clinical Research students differs slightly from students in the Health Sciences programmes, as they have an advisor in addition to their supervisor. <u>Chapter 5</u> provides more information about the specifics for Clinical Research students.

2.2.2.2 Second assessor

Your research paper is assessed by two people: your supervisor and your second assessor. For Health Sciences students, the second assessor is selected from a pool of assessors who are skilled epidemiologists. This allows you to register with the Dutch Association for Epidemiology (Vereniging voor Epidemiology, VvE) as Epidemiologist A after completing your master degree. Your second assessor is assigned to you by NIHES, which means you do not have to arrange a second assessor yourself. For Clinical Research students, the second assessor for the first components of the

research project is their advisor. For the paper and defence, the second assessors are two other members of the Clinical Research Advisory Board.

As of 2021, the second assessor is involved in the assessment of your project starting from your research proposal. To maintain independence in their assessment, they will not be involved in your direct supervision or be present for the presentations during your research phase (apart from your defence, if applicable). Instead, they will provide one-way feedback on your submitted research proposal and midterm presentation. Your second assessor will also assess your final research paper and is present for your defence, if applicable.

2.2.3 Practical research

As soon as you and your supervisor have decided on the topic to pursue, you will start working on your research project. You will be asked to formulate a research question, write a research proposal and design a study. As a Master student, you continue your research project directly after approval of the research proposal. You will write a research paper under your supervisor's guidance, in the format of a draft version of a scientific publication for an international peer reviewed scientific journal. It may be possible for you to collect and analyse data yourself, but in most cases you will carry out your project using existing data. You may be asked to help with data collection for future research. You will work closely together with the research group at your supervisor's institute/department, and have full access to the computer facilities for data management and analysis. You will regularly meet with your supervisor.

2.2.4 Research project

The following sub-sections provide more details about the requirements for your research project and the assessments that are part of your research project. Once you receive your login details, you will be able to find more elaborate information about your research in Canvas. Please find an overview of the required components for each programme on the next page.

2.2.4.1 Research proposal

At the start of the research process, MSc and RM students are required to write a research proposal in collaboration with their supervisor, which they subsequently present to their supervisor and an additional representative of their research group. The supervisor and the representative will then provide feedback on the research proposal, after which students adjust the proposal according to this feedback. The adjusted research proposal must be handed in as digital copy, together with the evaluation form filled in by the supervisor and the representative. The second assessor will then assess the proposal and provide the student with additional feedback.

2.2.4.2 Midterm presentation

Halfway through the research project, students are required to give a midterm presentation about their research thus far. In addition to this, students are required to write a midterm report detailing the progress of their research project thus far. The second assessor provides feedback on the research project based on this report. Further information will be provided in Canvas.

2.2.4.3 End presentation

All Master students are required to present the findings of their research project to the supervisor's research group.

2.2.4.4 Defence

Research Master students (both Health Sciences and Clinical Research) are required to defend their research paper after completion. More information about the defence can be found in paragraphs 4.3 and 5.3.5. The defence is not a requirement for students in the MSc in Health Sciences programme (70 EC) and the Postgraduate Programme.

2.2.4.5 Research paper

The research project has to culminate in (a draft version of) one or two research paper(s), including all required elements for publication in an international English-language peer-reviewed scientific journal with an impact factor and a good

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reputation in its field. You need to be listed as the sole author of this/these paper(s), with acknowledgement of your supervisor(s). When preparing your paper you should use a consistent reference style, such as AMA or Vancouver style: discuss with your supervisor what style of reference is most commonly used in the peer reviewed journal you plan to submit your paper to.

You are allowed to hand in multiple papers, under the following conditions:

- The papers need to be written under the guidance of the same supervisor;
- The subjects of the papers need to be related;
- The papers can be graded by the same second assessor.

Students are required to add an additional paragraph to their thesis, in which they discuss the integration of the courses they have followed over the course of their programme and their research. The assessment of this paragraph is included in the research paper assessment.

If your research paper leads to a publication, please be sure to mention the affiliation with NIHES, in the acknowledgements or otherwise.

The below table shows the components of the research project for each programme.

	Research Master in Health Sciences (120 EC points)	Research Master in Clinical Research (120 EC points)	MSc in Health Sciences (70 EC points)	Postgraduate Programme (70 EC points)
Research proposal	v	~	v	
Midterm presentation	~	~	'	'
End presentation	~	V	~	
Research paper+ integration paragraph	✓ (1)	✓ (1)	✓ (1)	✓ (2)
Defence	V	~		
Final exam	Medical students Erasmus MC	Medical students Erasmus MC		

2.2.5 Research Assessment

Your supervisor will assess your performance during your research period using a rubric covering your conduct and attitude, execution, focus on result and organization, and cooperation with your fellow researchers. Your paper and integration paragraph will be assessed by your supervisor and second assessor(s).

The final grade for your research period is based on the assessments of your research paper and project, and the final check and approval of an examiner (the Associate Programme Director of your major or a member of the Clinical Research Advisory Board). For more information check the Teaching and Examination Regulations, which will be available to you in Canvas.

2.2.6 Shared responsibility

If you have any questions or if you are experiencing problems, please contact your supervisor and your programme coordinator. RM Clinical Research students should contact the supervisor and advisor in first instance. More information about the advisors can be found in <u>chapter 5</u>. If necessary, the advisor or programme coordinator will consult with the (Associate) Programme Director.

Only the (Associate) Programme Director, in consultation with your programme coordinator, is authorized to decide on deviations from the rule that a student may start the research project only when all compulsory courses have been attended (see paragraph 2.2.1).

2.3 Communication

NIHES uses several modes of communication to keep you updated on all relevant information. The following sections will explain more about the used media and what each medium is used for.

2.3.1 Website

The <u>NIHES website</u> contains general information about our institute, our courses and living in Rotterdam. The website is mostly aimed at prospective students, but can be useful for finding information on courses and keeping up with general NIHES news. The Erasmus Summer Programme has <u>its own website</u>.

2.3.2 Email

Once you are enrolled, NIHES only communicates with you via your student email address. Because of privacy, NIHES will not answer emails from other email addresses. Please keep this in mind when contacting us via email.

2.3.3 OSIRIS

OSIRIS is a student information system used by most faculties of Erasmus University Rotterdam. You will receive a login code for the OSIRIS environment when commencing your studies at NIHES. OSIRIS is used for administrative information, such as checking your degree programme and your related exam programme, getting an overview of the courses in your programme, checking your study progress and exam results, and seeing how many EC points you still have open for electives.

Important to note is that NIHES course codes in OSIRIS are preceded by 'MEP-', e.g.: MEP-ESP01 for Principles of Research in Medicine and Epidemiology (ESP01) or MEP-CK010 for Study Design (CK010). Prior to the 2021-2022 academic year, NIHES course codes were preceded by 'MCER.'. Previously completed NIHES courses with that prefix are still valid.

2.3.4 Canvas

When commencing your studies at NIHES, you will receive a login code for the <u>Canvas learning environment</u>, which is the same as your login code for OSIRIS. During your time at NIHES, Canvas is your main source of information in terms of course details such as syllabuses, locations, dates and times of lectures and exams, reviews and resits, as well as other course material. Course instructors will also communicate with you through Canvas. Course information will be made available at least two weeks before the start of a course. Besides course-specific information, Canvas also provides general information about electives, examinations, rules and regulations, graduation, etcetera.

2.3.5 STiP

<u>STIP</u> is the Erasmus MC student information portal where you can find practical information about Erasmus MC and your programme, such as your enrolment, student facilities, and room schedules.

2.4 Assessment and other important information

In this section you will find general information about assessment, as well as other amenities available to you at NIHES.

2.4.1 Assessment

Most NIHES courses contain assessment in the form of assignments. All assessments in our programme are graded pass/fail, with the exception of your research project and paper which are graded using a numerical grade. A passing grade corresponds to a 60% or higher score, marked on your grades list as 'PA'. In the case of numerical grades, NIHES

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uses a 1-10 scale where a 5.5 or higher is considered a passing grade. When failing a course assessment, you have the right to one resit per academic year.

If a course includes mandatory attendance, it is also necessary to meet the attendance requirement in order to pass: if you do not meet this requirement, you will not be awarded the course EC points. If attendance is compulsory for an entire course, students may be absent for a maximum of 20% of the course. Not fulfilling the course attendance of a compulsory course means the student will need to re-attend/retake this specific course, e.g. in the upcoming year. If the course concerned was an elective course, they can obtain the course credits by either retaking the course, or by choosing another elective course. Retaking the course or choosing a substitute course may have financial consequences. Attendance is registered during the live sessions of the course via Academy Attendance. Students should register their attendance on all course days of their courses.

The lifelong learning skills courses are jointly assessed through the portfolio that you are required to submit near the end of your study programme. For Research Master (120 EC) students this portfolio is part of the Personal Education Plan, for students in the Master of Science in Health Sciences (70 EC) the portfolio is a separate document. The lifelong learning skills courses also include mandatory attendance, and may make use of assignments in the course.

Due to the lack of numerical grades in the programme, NIHES no longer offers the distinction 'cum laude' for students starting in 2021 or later. Students that have started their programme before 2021 can find the rules for cum laude in previous study guides, available in General Information in Canvas.

2.4.2 Examination policy

The examination policy is laid down in the following documents:

- Teaching and Examination Regulation (TER) Research Masters Erasmus MC for the Research Masters Health Sciences and Clinical Research (120 EC points);
- Teaching and Examination Regulation (TER) MSc in Health Sciences for the MSc in Health Sciences (70 EC points). These rules also apply to the Postgraduate programme.

You can find both documents in the General Information of NIHES pages on Canvas and on the <u>website of Erasmus University Rotterdam</u>. The most important rules are stated in section <u>2.4</u>, but we advise you to read the Teaching and Examination Regulations related to your programme. Details on the Examination Board can also be found in Canvas. Please note that the newest version of the TER is always followed, regardless of your cohort year.

For elective courses followed at other institutes or universities, the relevant Teaching and Examination Regulations of those institutions apply.

Information about the following inquiries for the Examination Board can be found in the TER and in General Information in Canvas. You can contact the Examination Board at examinationboard@erasmusmc.nl about the following issues and requests. Always mention your full name and student number in communications.

- request for exemption from a course;
- request to count an elective at another institute or university as an elective in your NIHES programme;
- application for extra facilities when taking exams (because of e.g. disabilities or dyslexia);
- requests for a 3rd attempt to take an exam;
- extension of validity of your exam results;
- lodging a formal complaint (e.g. regarding exam procedures).

2.4.3 Student representation

There are multiple levels of student representation at NIHES and Erasmus University Rotterdam as a whole. We encourage you to speak your mind and participate in our student representation.

- **Student panel**: At the start of each year a student panel with student representatives from all programmes and majors is set up to evaluate the programme in general. All students receive an invitation to apply in the fall.
- Education Committee: The Education Committee Research Masters is a committee consisting of both teachers and students, dedicated to improving the quality of education. Contrary to the student panel, the Education Committee covers all Research Master programmes at Erasmus MC.
- **Student Council**: The Student Council (*Studentenraad* in Dutch) is an elected, faculty-wide council that represents the interests of students within the Erasmus MC School in meetings with the school's dean. Its members are elected yearly (in spring) by Erasmus MC students. NIHES students have active voting rights.
- **University Council**: the University Council (*Universiteitsraad* in Dutch) is an elected, university-wide council that represents the interests of both students and employees in monthly meetings with the executive board. Its members are elected yearly (in spring). NIHES students have active voting rights.

2.4.4 Support & advice

During your time at NIHES, issues or questions may come up that you wish to discuss with someone. Depending on the nature of the issues you're facing, there are a number of options.

2.4.4.1 Content-related support

For questions and issues related to specific courses, please contact the course coordinator of that specific course and/or ESC – Team Graduate School at nihes@erasmusmc.nl.

If you are looking for advice regarding your study programme and the planning of your courses, you can contact your programme coordinator (see <u>Annex IV</u> for contact details).

2.4.4.2 Academic advisors

For issues and questions about your personal situation related to your studies, students can contact the academic advisors (studieadviseurs). The academic advisors are independent of the master programmes and all consultations are confidential. The academic advisor acts as an advisor to the Examination Board and the programme director for students who need an exception to the rules.

You are welcome to send the academic advisors an e-mail or schedule an appointment for the following subjects:

- Concerns about your study progress
- Personal circumstances that (may) negatively influence your studies
- Requesting provisions for students with a functional impairment

For more information and to schedule an appointment, go to <u>Study support - academic advisor | Erasmus MC | Erasmus University Rotterdam (eur.nl)</u>.

2.4.4.3 Student counsellor

You can contact the student counsellor for questions and/or problems involving regulations and statutory provisions, finances or special cases. For more information and/or contact, visit the <u>EUR website</u>.

2.4.4.4 Student psychologists

Erasmus University offers student psychologists that support students experiencing psychological, social and/or emotional issues. A specific PhD psychologist is available for PhD students. You can find more information, as well as book an appointment, on the EUR website.

2.4.4.5 Confidential counsellor

At NIHES and Erasmus University Rotterdam, we place great importance on students' ability to work in a pleasant and productive atmosphere. In order to make sure all students have the opportunity to do that, NIHES has appointed a

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confidential counsellor. Students can turn to the confidential counsellor when they are confronted with behaviour or circumstances they <u>experience</u> as unwanted.

Unwanted behaviour can be any behaviour that is experienced as unwanted, such as (but not limited to) aggression and/or violence, (sexual) intimidation, bullying, discrimination, stalking, or unequal treatment. The confidential counsellor helps you in solving these problems, but will not take any steps without your explicit approval. All consultations are confidential.

NIHES' confidential counsellor is Ed van Beeck, MD, PhD.

Email: e.vanbeeck@erasmusmc.nl

2.4.5 Dutch residence permit

For students with a temporary Dutch residence permit the following rule applies: Dutch education institutes are obliged to inform the Netherlands Immigration and Naturalization Service (IND) about the study progress of international students with a Dutch residence permit for study purposes. Insufficient study results (<50%) may lead to the withdrawal of a student's residence permit.

3 Master of Science in Health Sciences (70 EC points)

The Master of Science programme in Health Sciences (70 EC points) is offered as a one-year full-time programme. The programme can also be followed part-time, in which case you will need to plan your programme in consultation with one of our programme coordinators. Note that some of the fall courses have prerequisites that need to be taken into account, as listed in annex I.

The programme offers the following majors:

- Epidemiology;
- Clinical Epidemiology;
- Genomic & Molecular Epidemiology;
- Public Health Epidemiology;
- Biostatistics;
- Medical Psychology;
- Health Decision Sciences & Technology Assessment.

3.1 Aims of the programme

The Master of Science in Health Sciences programme aims to educate students in research methodology. Upon graduation you will be able to successfully pursue a scientific career. The programme provides you with a solid theoretical, methodological and statistical basis for designing and implementing a research project and will teach you how to best publish the results of your research project. In the course of the programme you will acquire the following competencies:

- The student is able to translate a (clinical) epidemiologic, public health or health care problem into a scientific research question.
- The student is able to translate a scientific research question in the area of (clinical) epidemiology, public health or health care into a research protocol and/or proposal.
- The student is able to conduct a systematic literature review of a clinical or public health issue.
- The student has knowledge about quantitative methods and the ability to apply this knowledge in preparing, performing, analysing and interpreting research.
- The student understands core concepts of etiologic (causality), prognostic, diagnostic, prevention, and intervention research.
- The student has knowledge of regulations and ethical rules applicable to the fields of clinical and public health research, and is able to apply this knowledge.
- The student is able to collaborate with fellow members of a research group in order to set up and conduct a research project, to collect data, and to analyse these data to draw conclusions.
- The student is able to write a draft manuscript or Master of Science thesis, based on a (clinical) epidemiologic, public health or health care subject.
- The student is able to present the research findings in an engaging way.
- The student is able to respond to criticism in a constructive and productive manner.
- The student is able to critically review and assess the relevance of scientific results.
- The student engages in personal and professional development.

3.2 Specific course information

All information in section 2.1 is applicable to MSc students in Health Sciences. Additionally, the MSc in Health Sciences students need to attend and pass the Introduction to Medical Writing course (see below).

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3.2.1 Introduction to Medical Writing

This course is compulsory for all MSc students. The course focuses on the writing of correct and readable scientific articles in English. Students who have successfully completed an equivalent course in the past (e.g. Erasmus MC PhD students who have successfully completed a PhD course on Biomedical English writing and Communication) can apply for an exemption from Introduction to Medical Writing (course code MEP-LLS01) by contacting the Examination Board (see paragraph 2.4.2).

3.2.2 Portfolio

As part of the lifelong learning skills courses, the portfolio is a requirement for all students in this MSc programme. Students are asked to reflect on their personal and professional development over the course of their programme, and on what influence the lifelong learning skills courses had on this development.

3.2.3 Exemptions for PhD students

The Erasmus MC Graduate School offers courses that provide highly similar content to the NIHES courses LLS01 Introduction to Medical Writing, LLS05 Intervision and LLS06 Scientific Integrity. Students who have completed these PhD courses or are planning to participate in these PhD courses are able to request an exemption for the equivalent NIHES course. Exemption requests for these courses work the same way as regular exemption requests, i.e. by submitting a request to the Examination Board showing proof of successful completion.

3.3 Specific Research information

All information concerning the research project in section $\underline{2.2}$ is applicable to MSc students in Health Sciences, with the exception of the defence.

3.4 Recommended elective courses

In our programmes, students are free to personalize their programme by choosing electives from a broad range of courses. However, for students in the Master of Science in Health Sciences (70 EC) and the Research Master in Health Sciences (120 EC) programmes, the respective Associate Programme Director of each major has compiled a list of recommended elective courses that suit that major and will help you in your research. These recommended electives are listed in Annex III.

3.5 Programme overview MSc Health Sciences (70 EC points)

Exam programme in OSIRIS is NIHES-MHS-2021. For dates and overview fall courses, check annex I.

Master of Science in Health Sciences - 70 EC points - 2022-2023							
Calendar	Course code	Course	EC				
Aug 2022	ESP01	Principles of Research in Medicine and Epidemiology	0,7				
Aug 2022	ESP11	Methods of Public Health Research	0,7				
Aug 2022	ESP43	Principles of Genetic Epidemiology	0,7				
Aug 2022	ESP61	Social Epidemiology	0,7				
Aug 2022	ESP65	Practice of Epidemiologic Analysis	0,7				
Aug 2022	ESP70	Fundamentals of Medical Decision Making	0,7				
Aug 2022	CK001	Review of Mathematics and Introduction to Statistics	1,0				
Fall 2022	CK010	Study Design	4,0				
Fall 2022	CK020	Biostatistics I	4,5				
Fall 2022	CK030	Biostatistics II	4,5				
Fall 2022	CK040	Clinical Epidemiology	3,0				
Fall 2022	CK050	Principles of Public Health	3,0				
Jan 2023	CK060	Selected Topics in Epidemiology	3,0				
Fall 2022	CK070	Core competences exam	1,0				
Winter-spring 2023	LLS01	Introduction to Medical Writing	2,0				
Sep 2022-Jul 2023	LLS04	Portfolio	0,2				
Fall 2022-Jul 2023	LLS05	Intervision	0,4				
Winter-spring 2023	LLS06	Scientific Integrity	0,3				
Fall 2022	LLS07	Intercultural Communication	0,2				
Fall 2022-Jul 2023	M-RES	Research	28,7				
Jan 2023-Aug 2023		Elective courses*	10,0				
		TOTAL EC points	70,0				

^{*} Students are allowed to exceed the amount of elective EC points by max 1.4 EC

This 13-month programme runs from August 2022 until August 2023 and can be followed part-time.

Note that some courses need to be followed in a specific order as earlier courses are prerequisites for later courses. $\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} \right) \left($

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4. Research Master in Health Sciences (120 EC points)

The Research Master (RM) in Health Sciences (120 EC points) is offered in two very similar learning modes: a two-year fulltime variant, and a variant for selected medical students of Erasmus MC. Section <u>4.4</u> gives specific information on the schedule of the RM Health Sciences for medical students at Erasmus MC.

The two-year year fulltime programme offers the following majors:

- Epidemiology;
- Clinical Epidemiology;
- Genomic & Molecular Epidemiology;
- Public Health Epidemiology;
- Medical Psychology;
- Biostatistics;
- Health Decision Sciences & Technology Assessment.

4.1 Aims of the programme

The Research Master in Health Sciences programme aims to provide students with a thorough understanding of methods in either clinical or public health research. After completion, candidates will have the knowledge, understanding and skills to pursue a further scientific career. Students work on acquiring the following competencies over the course of the programme:

- The student is able to translate a (clinical) epidemiologic, public health or health care problem into a scientific research question.
- The student is able to translate a scientific research question in the area of (clinical) epidemiology, public health or health care into a research protocol and/or proposal.
- The student is able to conduct a systematic literature review of a clinical or public health issue.
- The student has knowledge about quantitative methods and the ability to apply this knowledge in preparing, performing, analysing and interpreting research.
- The student understands core concepts of etiologic (causality), prognostic, diagnostic, prevention, and intervention research.
- The student has knowledge of regulations and ethical rules applicable to the fields of clinical and public health research, and is able to apply this knowledge.
- The student is able to collaborate with fellow members of a research group in order to set up and conduct a research project, to collect data, and to analyse these data to draw conclusions.
- The student is able to write a draft manuscript or Master of Science thesis, based on a (clinical) epidemiologic, public health or health care subject.
- The student is able to present the research findings in an engaging way.
- The student is able to respond to criticism in a constructive and productive manner.
- The student is able to critically review and assess the relevance of scientific results.
- The student engages in personal and professional development.

This skill set will enable students to become researchers with the ability to complete a PhD programme.

4.2 Specific course information

All information in section 2.1 is applicable to RM in Health Sciences students. Additionally, they are required to attend and pass the Scientific Writing in English for Publication course (see below).

4.2.1 Scientific Writing in English for Publication

This course is compulsory for all second year RM students. It consists of four separate days throughout the spring semester with self-study and peer feedback in between, and focuses on the writing of correct and readable scientific articles in English.

4.2.2 Research Seminars for Research Master students

Throughout the programme research seminars will be organized. All Research Master students must attend at least 12 seminars per year, thus 24 in total. A research seminar should at least take one hour. Visiting conferences and other research meetings instead is also allowed; one conference or meeting day counts for one seminar, also if it takes more than one hour. Research seminars are organized by the research departments. You can ask your supervisor for more information about seminars at his/her department.

4.2.3 Personal Education Plan

Every Research Master student is expected to make a Personal Education Programme (PEP): a document in which you plan your personal programme. The PEP covers meetings with your supervisor, planning elective courses, and research seminars, and is concluded by writing a reflection on your personal and professional development over the course of your study programme. The PEP is signed off by your supervisor. You may take elective courses at the different Erasmus MC research masters, provided that your supervisor and the examination board have given permission. You are responsible for organising the meetings according to the PEP, for adding the summaries and for obtaining signatures from your supervisor where necessary. Attended research seminars must be registered in the PEP. You are requested to collect proof of attendance or a signature of the lecturer of the research seminar. If this is not possible, it is also allowed for your supervisor or advisor to sign for a seminar. For more information on research seminars see section 4.2.2 'research seminars'. The PEP can be downloaded from General Information in Canvas.

4.3 Specific research information

All information in section 2.2 is applicable to RM in Health Sciences students. As mentioned in section 2.2, students in the Research Master in Health Sciences are required to defend their research after completion. This defence happens in a session with their supervisor and second assessor, and is graded with a pass or fail. The session is planned in consultation with the student and their supervisor. Students are welcome to invite (a limited number of) friends and family to their defence.

4.4 Medical students

The ultimate goal of the Research Master in Health Sciences for selected medical students is to scout excellent students at an early point in time and challenge them to become clinical researchers, foster them during their research- and clinical career and motivate them to become academic specialists and possibly future professors of medicine.

Medical students follow a programme that is almost identical to the regular RM in Health Sciences. However, medical students need to take a final exam after completing their Master in Medicine. Medical students following the Research Master programme finish their research period slightly earlier than regular Research Master students, to compensate for the final exam and to allow medical students to start their internships (co-schappen in Dutch) on time. A visual overview of the programme for medical students can be found in annex II.

4.4.1 Final Exam

The final exam is a concluding oral exam during which you are required to give a presentation about your research, and subsequently discuss your project with the exam committee. You are expected to explain your research project in brief and then to relate your research to:

- The theory and practice of your Master in Medicine and Research Master;
- The competencies you have gained in your Master in Medicine and Research Master;

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- The consequences for your profession;
- The consequences for you and your career.

Medical students following a Research Master will be able to find more information about the Final Exam in their Research course in Canvas, including information on applying for a final exam. The deadline for application is six weeks before the planned date of the final exam. The final exam takes place after graduating from the Master in Medicine.

4.4.2 Exemptions for Master in Medicine

Upon successful completion of all courses mentioned below, you can be exempted from 'thema Master 1a Methoden van klinisch en epidemiologisch onderzoek' of your Master in Medicine. For students who pass these courses after their first exam, NIHES will check whether they want to request an exemption, and then send a group request for exemption to the Examination Board of the Bachelor and Master in Medicine. Students who do not pass the exams during the first attempt need to send an exemption request themselves.

The courses involved are:

- The introductory Erasmus Summer Programme;
- Review of Mathematics and Introduction to Statistics (CK001)
- Study Design (CK010);
- Biostatistics I (CK020).

For other exemptions for the medical programme, a request should be submitted to the Examination Board of Medicine. It is the responsibility of the student to request these exemptions, i.e. upon completion of the research project for your Research Master programme, you may request an exemption of the research project in your medicine programme (keuzeonderzoek), as well as for the elective internship (keuze-coschap).

4.5 Recommended elective courses

In our programmes, students are free to personalize their programme by choosing electives from a broad range of courses. However, for students in the Master of Science in Health Sciences (70 EC) and the Research Master in Health Sciences (120 EC) programmes, the respective Associate Programme Director of each major has compiled a list of recommended elective courses that suit that major and will help you in your research. These recommended electives are listed in <u>Annex III</u>.

4.6 Programme overview Research Master Health Sciences (120 EC points)

Exam programme in OSIRIS is NIHES-RMHS-2021 (regular programme) or NIHES-RMHS-M-2021 (medical students). For dates and overview fall courses, check annex I.

	Resear	ch Master in Health Sciences - 120 EC points - 2	022-2	I	5 MG	
Calendar Course code Course		Course	EC	Regular programme	Erasmus MC medical	
Aug 2022	ESP01	Principles of Research in Medicine and Epidemiology	0,7	0,7	0,7	
Aug 2022	ESP11	Methods of Public Health Research	0,7	0,7	0,7	
Aug 2022	ESP43	Principles of Genetic Epidemiology	0,7	0,7	0,7	
Aug 2022	ESP61	Social Epidemiology	0,7	0,7	0,7	
Aug 2022	ESP65	Practice of Epidemiologic Analysis	0,7	0,7	0,7	
Aug 2022	ESP70	Fundamentals of Medical Decision Making	0,7	0,7	0,7	
Aug 2022	CK001	Review of Mathematics and Introduction to Statistics	1,0	1,0	1,0	
Fall 2022	CK010	Study Design	4,0	4,0	4,0	
Fall 2022	CK020	Biostatistics I	4,5	4,5	4,5	
Fall 2022	СК030	Biostatistics II	4,5	4,5	4,5	
Fall 2022	CK040	Clinical Epidemiology	3,0	3,0	3,0	
Fall 2022	СК050	Principles of Public Health	3,0	3,0	3,0	
Jan 2023	СК060	Selected Topics in Epidemiology		3,0	3,0	
Fall 2022	CK070	Core competences exam	1,0	1,0	1,0	
Jan 2024	СК080	Core competences video	1,0	1,0	1,0	
Winter-spring 2024	LLS02	Scientific Writing in English for Publication	2,0	2,0	2,0	
Fall 2022-Jul 2024	LLS03	Personal Education Plan	1,1	1,1	1,1	
Fall 2022-Jul 2023	LLS05	Intervision	0,4	0,4	0,4	
Winter-spring 2023	LLS06	Scientific Integrity	0,3	0,3	0,3	
Fall 2022	LLS07	Intercultural Communication		0,2	0,2	
Sep 2023-Jul 2024		Lifelong Learning Skills elective courses	1,0	1,0	1,0	
Fall 2022-Jul 2024 RM-RES		Research		65,8		
Fall 2022-Jul 2024 RM-RES-MED Res		Research (medical students)	63,8		63,8	
After MSc Med	FE	Final Exam (medical students)	2,0		2,0	
Jan 2023-Aug 2024		Elective courses*	20,0	20,0	20,0	
		TOTAL EC	points	120,0	120,0	

 $[\]ensuremath{^{*}}$ Students are allowed to exceed the amount of elective EC points by max 2.8 EC

Year 1 = August 2022 until July 2023 Year 2 = August 2023 until August 2024

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5. Research Master in Clinical Research (120 EC points)

The Research Master (RM) in Clinical Research (120 EC points) is available in two learning modes: a two-year fulltime variant, and a variant for excellent medical students (120 EC points). Section <u>5.4</u> gives specific information on the schedule of the programme Clinical Research, combined with the medical curriculum at Erasmus MC.

5.1 Aims of the programme

The Research Master in Clinical Research programme is directed at providing students with the skills essential to patient-oriented clinical research. The programme has a strong focus on epidemiologic methods and statistical analysis, to meet the changing needs of the current health care field, particularly the increasing need for trained professionals with well-developed quantitative and analytic skills. On the basis of the knowledge built during the research master, the student will be prepared to write a research protocol and to perform research. Students work on acquiring the following competencies over the course of the programme:

- The student is able to translate a clinically relevant problem into a scientific research question.
- The student is able to translate a scientific research question into a research protocol and/or proposal which can be studied in clinical practice, choosing appropriate methodology for the specific setting and patient population.
- The student is able to conduct a systematic literature review of a clinical issue.
- The student has knowledge about quantitative methods and the ability to apply this knowledge in preparing, performing, analysing and interpreting research.
- The student understands core concepts of etiologic (causality), prognostic, diagnostic, prevention, and intervention research.
- The student has knowledge of regulations and ethical rules applicable to the fields of clinical research, and is able to apply this knowledge, e.g. in writing a protocol for a medical ethics approval or designing a study according to GCP regulations.
- The student is able to collaborate with fellow members of a research group in order to set up and conduct a research project, to collect data, and to analyse these data to draw conclusions.
- The student is able to write a draft manuscript or Master of Science thesis.
- The student is able to present the research findings in an engaging way with a specific focus on the clinical readership.
- The student is able to respond to criticism in a constructive and productive manner.
- The student is able to critically review and assess the relevance of scientific results.
- The student engages in personal and professional development.

This skill set will enable students to become researchers with the ability to complete a PhD programme.

5.2 Specific course information

All information in section <u>2.1</u> is applicable to Research Master students in Clinical Research. The RM in Clinical Research students additionally are required to attend and pass the Scientific Writing in English for Publication course (see below).

5.2.1 Scientific Writing in English for Publication

This course is compulsory for all second year Research Master students. It consists of four separate days throughout the spring semester with self-study and peer feedback in between, and focuses on the writing of correct and readable scientific articles in English.

5.2.2 Research Seminars for Research Master students

Throughout the programme research seminars will be organized. All Research Master students must attend at least 12 seminars per year, thus 24 in total. A research seminar should at least take one hour. Visiting conference and other

research meetings instead is also allowed; one conference or meeting day counts for one research seminar, also if it takes more than one hour. Research seminars are organized by the research departments. You can ask your supervisor for more information about seminars at his/her department. Research Master students must register attended research seminars in their Personal Education Plan (PEP, see below).

5.2.3 Personal Education Plan

Every Research Master student is expected to make a Personal Education Programme (PEP): a document in which you plan your personal programme. The PEP covers meetings with your advisor and supervisor, planning elective courses, and research seminars, and is concluded by writing a reflection on your personal and professional development over the course of your study programme. The PEP is signed off by your supervisor and advisor. You may take elective courses at the research masters in Erasmus MC, provided that your supervisor and advisor, and the examination board have given permission. You are responsible for organising the meetings according to the PEP, for adding the summaries and for obtaining signatures from your advisor and supervisor where necessary. Attended research seminars must be registered in the PEP. You are requested to collect proof of attendance or a signature of the lecturer of the research seminar. If this is not possible, it's also allowed for your supervisor or advisor to sign for a seminar. For more information on research seminars see section 5.2.2 'research seminars'. The PEP can be downloaded from General Information in Canvas.

5.3 Specific research information

5.3.1 Clinical Research Advisory Board

The Clinical Research Advisory Board guides the study progress of the Clinical Research students. Furthermore, members of the Advisory Board are part of the defence committee.

Every student is coupled with an advisor. The selection committee will choose an advisor from the Clinical Research Advisory Board based on your research ambitions.

5.3.2 Advisor Clinical Research

Once an advisor has been appointed, the student sends them their curriculum vitae. From that point on, it is up to your advisor and you to search for a suitable research project and supervisor.

Your advisor is tasked with a number of responsibilities, including:

- finding a suitable supervisor;
- keeping informed about study progress and having regular meetings with you and your supervisor about this;
- signing off on your research proposal and several aspects of the Personal Education Programme (see 5.3.3);
- assisting you in solving problems not directly related to the research project and tasks of the supervisor;
- being present at your midterm presentation.

5.3.3 Personal supervisor

You will work on your research project under the guidance of the personal supervisor to whom you are assigned in consultation with your advisor. All supervisors are senior faculty members at Erasmus MC or Erasmus University Rotterdam with an appointment of at least 0,4 fte at Erasmus MC. Each supervisor has considerable experience (minimally at PhD level) in one or more specific research subjects.

The primary tasks of the supervisor are to support and supervise you during your research phase, to give you feedback and to assess your work (elaborated on in Canvas). Your supervisor will also arrange a workspace for you. More information on the role of the supervisor in your research process can be found in the supervisor guide, available on the NIHES website and in Canvas. Additionally, supervisors of the RM Clinical Research students have the following responsibilities, including:

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- monitoring and reporting on your progress and results together with the advisor;
- signing off on the Personal Education Plan (see 5.2.3);
- reporting on your research progress to your advisor;
- being present at your final defence meeting.

5.3.4 Practical research

Sub-section 2.2.3 is applicable to the RM Clinical Research. Additionally, you are required to make an appointment with your supervisor and advisor twice a year, first to discuss your research proposal and afterwards to monitor the progress of your research project.

5.3.5 Defending your research

As mentioned in section 2.2, students in the Research Master in Clinical Research are required to defend their research after completion. This defence happens in a session with your supervisor and members of the Clinical Research Advisory Board, and is graded with a pass or fail. In consultation with your supervisor, you choose a date for your defence from a number of dates set by NIHES. Students are welcome to invite (a limited number of) friends and family to their defence.

The assessment of your defence and the final grade of your research paper will be determined by your supervisor and the two members of the Advisory Board that are appointed as your second and third assessor, as described in subsection 2.2.5.

5.4 Medical students

The ultimate goal of the Research Master in Clinical Research for selected medical students is to scout excellent students at an early point in time and challenge them to become clinical investigators, foster them during their research- and clinical career and motivate them to become academic specialists and possibly future professors of medicine.

Medical students follow a programme that is almost identical to the regular RM in Clinical Research. However, medical students need to take a final exam after completing their Master in Medicine. Medical students following the Research Master programme finish their research period slightly earlier than regular Research Master students, to compensate for the final exam and to allow medical students to start their internships (co-schappen) on time. A visual overview of the programme for medical students can be found in annex II.

5.4.1 Final Exam

The final exam is a concluding oral exam during which you are required to give a presentation, and subsequently discuss your project with the exam committee. You are expected to explain your research project in brief and then to relate your research to:

- The theory and practice of your Master in Medicine and Research Master;
- The competencies you have gained in your Master in Medicine and Research Master;
- The consequences for your profession;
- The consequences for you and your career.

Medical students following a Research Master students will be able to find more information about the Final Exam in their Research course in Canvas, including information on applying for a final exam. The deadline for application is six weeks before the planned date of the final exam. The final exam takes place after graduating from the Master in Medicine.

5.4.2 Exemptions for Master in Medicine

Upon successful completion of all courses mentioned below, you can be exempted from "thema Master 1a Methoden van Onderzoek" of your Master in Medicine. For students who pass these courses after their first exam, NIHES will check whether they want to request an exemption, and then send a group request for exemption to the Examination Board of

the Bachelor and Master in Medicine. Students who do not pass the exams during the first attempt need to send an exemption request themselves.

The courses involved are:

- The introductory Erasmus Summer Programme;
- Review of Mathematics and Introduction to Statistics (CK001)
- Study Design (CK010);
- Biostatistics I (CK020).

For other exemptions for the medical programme, a request should be submitted to the Examination Board of Medicine. It is the responsibility of the student to request these exemptions, i.e. upon completion of the research project for your Research Master programme, you may request an exemption of the research project in your medicine programme (keuzeonderzoek), as well as for the elective internship (keuze-coschap).

5.5 Recommended elective courses

In our programmes, students are free to personalize their programme by choosing electives from a broad range of courses. However, we strongly encourage students in the Research Master in Clinical Research to attend the basic course for clinical investigators (BROK course) or to take a WMO/GCP (Good Clinical Practice) course as an elective, depending on their needs. NIHES does not offer these courses, but will cover the course fee provided that students request permission before starting the course. More information about applying for a BROK or WMO/GCP course will be provided in the Canvas General Information environment.

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5.5 Programme overview Research Master Clinical Research

Exam programme in OSIRIS is NIHES-RMCR-2021 (regular programme) or NIHES-RMCR-M-2021 (medical students). For dates and overview fall courses, check $\underline{annex\ I}$.

Calendar	Course code	Course	EC	Regular programme	Erasmus MC medical	
Aug 2022 ESP01 Principles of		Principles of Research in Medicine and Epidemiology	0,7	0,7	0,7	
Aug 2022	ESP11	Methods of Public Health Research	0,7	0,7	0,7	
Aug 2022	ESP43	Principles of Genetic Epidemiology	0,7	0,7	0,7	
Aug 2022	ESP61	Social Epidemiology	0,7	0,7	0,7	
Aug 2022	ESP65	Practice of Epidemiologic Analysis	0,7	0,7	0,7	
Aug 2022	ESP70	Fundamentals of Medical Decision Making	0,7	0,7	0,7	
Aug 2022	CK001	Review of Mathematics and Introduction to Statistics	1,0	1,0	1,0	
Fall 2022	CK010	Study Design	4,0	4,0	4,0	
Fall 2022	СК020	Biostatistics I	4,5	4,5	4,5	
Fall 2022	СК030	Biostatistics II	4,5	4,5	4,5	
Fall 2022	CK040	Clinical Epidemiology		3,0	3,0	
Fall 2022	СК050	Principles of Public Health	3,0	3,0	3,0	
Jan 2023	СК060	Selected Topics in Epidemiology	3,0	3,0	3,0	
Fall 2022	СК070	Core competences exam	1,0	1,0	1,0	
Jan 2024	СК080	Core competences video	1,0	1,0	1,0	
Winter-spring 2024	LLS02	Scientific Writing in English for Publication	2,0	2,0	2,0	
Fall 2022-Jul 2024	LLS03	Personal Education Plan	1,1	1,1	1,1	
Fall 2022-Jul 2023	LLS05	Intervision	0,4	0,4	0,4	
Winter-spring 2023	LLS06	Scientific Integrity	0,3	0,3	0,3	
Fall 2022	LLS07	Intercultural Communication	0,2	0,2	0,2	
Sep 2023-Jul 2024		Lifelong Learning Skills elective courses	1,0	1,0	1,0	
Fall 2022-Jul 2024	2022-Jul 2024 RM-RES Research		65,8	65,8		
Fall 2022-Jul 2024	II 2022-Jul 2024 RM-RES-MED Research (medical students)		63,8		63,8	
After MSc Med	FE	Final Exam (medical students)	2,0		2,0	
Jan 2023-Aug 2024		Elective courses*	20,0	20,0	20,0	
		TOTAL EC	noints	120,0	120,0	

 $[\]ensuremath{^{*}}$ Students are allowed to exceed the amount of elective EC points by max 2.8 EC

Year 1 = August 2022 until July 2023 Year 2 = August 2023 until August 2024

6. Postgraduate Programme (70 EC points)

Our one-year, full-time Postgraduate Programme¹ (70 EC points) is for Master graduates with considerable research experience and runs from August until the end of August the following year. It is almost entirely devoted to research, either at one of the departments or research groups affiliated with NIHES, or at the student's home institution. Either way, you will be guided by a senior scientist, your supervisor.

The programme is available in four key disciplines of NIHES:

- Epidemiology;
- Clinical Epidemiology;
- Genomic & Molecular Epidemiology;
- Public Health Epidemiology.

Upon successful completion you will be awarded a Postgraduate Certificate by the Erasmus University Rotterdam in the discipline of your choice. You compose your Postgraduate programme by choosing the subject for your research project and elective courses. The programme outline and the application and admission procedures are available on the NIHES website.

6.1 Aims of the programmes

- Acquire post-MSc research experience;
- Increase chances of qualifying for a PhD research project;
- Ability to independently conduct the research, collect and analyse data, and draw conclusions;
- Ability to write two research papers, including the objective(s) of the investigation, a summary of the literature, materials, methods, results, discussion and conclusions of the research project and to present these findings at scientific meetings. Publication of the research findings in an international peer-reviewed journal is encouraged.

6.2 Specific course information

Most of the information in section <u>2.1</u> is applicable to Postgraduate students, with the exception of 2.1.2.2 Core courses and 2.1.2.4 Lifelong learning skills. The only required courses in the Postgraduate programme are a selection of advanced courses in the Erasmus Summer Programme, and electives. The majority of the time in this programme is reserved for working on research.

Note that students who have already completed any of the required courses for the Postgraduate Programme before starting the programme, are required to substitute the EC allocated to those courses with alternative courses.

6.3 Specific research information

The information in section 2.2 is applicable to Postgraduate students – however, the research project culminates in the writing of two scientific papers that should be ready for submission to an international peer-reviewed scientific journal. Also note that Postgraduate students are only required to complete the midterm presentation and the final research papers.

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¹ Please note that the Postgraduate programme is not accredited, nor is the certificate legally recognized. This non-degree programme is recognised only by the Erasmus University Rotterdam.

6.4 Programme Overview Postgraduate Programme (70 EC points)

Exam programme in OSIRIS is NIHES-PGP-2021. For dates and overview fall courses, check <u>annex I</u>.

	Postgraduate Programme - 70 EC points - 2022-2023							
Calendar	Course code	Course	EC					
Aug 2022	ESP48	Causal Inference	1,4					
Aug 2022	ESP69	Causal Mediation Analysis	1,4					
Aug 2022	ESP77	Advances in Clinical Epidemiology	0,7					
Sep 2022-Jul 2023	PCE-RES	Research	60,9					
Jan 2023-Aug 2023		Elective courses*	5,6					
		TOTAL EC points	70,0					

 $^{^{}st}$ Students are allowed to exceed the amount of elective EC points by max 1.4 EC

This 13-month programme runs from August 2022 until August 2023.

7. Graduation

7.1 Requirements

In order to register your study results and formally complete your programme, you need an active enrolment as a student. This is <u>not</u> necessary for the graduation ceremony itself, but only for registering completion of your programme in OSIRIS.

You are expected to attend the NIHES Graduation Ceremony after completing all compulsory and elective courses, and research requirements included in your programme. The ceremony is held at the end of August or in early September in the afternoon and includes a festive drink after the ceremony.

In April/May you will receive full details about the graduation ceremony including registration.

7.2 NIHES Awards

Each year during the Graduation Ceremony, two awards are presented:

- to the graduate of the Master of Science in Health Sciences (70 EC points), who is the author of the best research paper written in the current academic year;
- to the graduate of the Research Master in Health Sciences (120 EC points) or Research Master in Clinical Research (120 EC points), who is the author of the best research paper written in the current academic year.

Each award consists of a certificate and €500.

For the NIHES Awards, all supervisors and scientific staff involved in the Master of Science in Health Sciences and Master of Science in Clinical Research programmes may nominate one or more students they believe to be eligible for an award. The best articles will be selected by an Award Committee chaired by one of the Programme Directors.

7.3 Your diploma or certificate

At the graduation ceremony Master students will receive their diploma, together with a grades list and diploma supplement. Postgraduate students will receive their certificate, also together with a grades list and certificate supplement.

Note that Master students need to legalise their documents to be able to use them abroad for study or work.¹ More information about legalisation can be found on the website of the Dutch Education Regulation DUO, under "Legalization of your Dutch educational documents".

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¹ Please note that the Postgraduate programme is not accredited, nor is the certificate legally recognized. This non-degree programme is recognised only by the Erasmus University Rotterdam.

8. After graduation

8.1 Continue your research training

8.1.1 NIHES Postgraduate programme

If you successfully finished your Master of Science Programme and would like to acquire more research experience or increase your chances of qualifying for a PhD research project, consider continuing towards a Postgraduate certificate at NIHES. This additional year of research training is almost entirely devoted to research. More information about the programme can be found in chapter 6. If you are interested, please contact one of the NIHES programme coordinators to discuss your eligibility. Note that the application deadline is 1 May.

8.1.2 PhD research project

Graduates who wish to go on to work towards a PhD should discuss this with their supervisor. Depending on the research projects and options available, students may be eligible for a PhD position at one of the institutes participating in NIHES. Please note that NIHES itself does NOT offer nor mediate in finding PhD positions.

8.2 Stay in touch!

Networking is key! NIHES likes to follow her students and keep in contact with alumni through our various communication channels such as LinkedIn, Facebook, YouTube and Twitter. We want to keep on building our esteemed network of alumni. This network also allows you the ease of staying in contact with your fellow students, other alumni and professors. It is also an invaluable network that can undoubtedly support you throughout your career. So if you have not already connected with us, we highly recommend you do!

Find us on:

LinkedIn /NIHES - Netherlands Institute for Health Sciences

Facebook /NIHESnl

YouTube / NIHESnl

Twitter @NIHESnl

Instagram @nihes.nl

After your graduation, please let us know every now and then how you are doing (for example a short testimonial with your picture) – we like to applaud our alumni!

... and our best wishes for your future career!

Annex I: Fall schedule 2022

NIHES Fall schedule 2022

All courses cover a full-time workload. Please note that our aim is to offer all fall courses in a hybrid way.

CK060 Selected Topics in Epidemiology is a required core course, but is not included in the 2022-2023 Core Competences Exam.

		AUGUST			SEPTEMBER			OCTOBER		NOVEMBER	DECEMBER		JANUARY	
Mo	1						3						2	
Tu	2						4		1		1		3	
We	3						5		2	CK030 Biostatistics II			4	
Th	4			1	Bonding & Belonging (see		6		3	CROSO BIOSTATISTICS II	1		5	
Fr	5			2	detailed schedule)		7	CK020 Biostatistics I	4		2		6	
Mo	8			5			10	CROZO BIOStatistics i	7		5		9	
Tu	9	ESP01 (morning), ESP43		6			11		8		6	CK040 Clinical Epidemiology	10	
We	10	(afternoon)		7			12		9	Mid-semester break	7		11	
Th	11	(untermoon)		8			13		10		8		12	
Fr	12			9			14		11		9		13	CK060 Selected Topics in Epidemiology
Mo	15		CK001 Review of	12		CK001 Review of	17		14		12		16	chood selected ropids in Epideimology
Tu	16	FSP11 (morning) FSP70	Mathematics and	13		Mathematics and	18		15		13		17	
We	17	(afternoon)	Intro to Statistics	14	CK010 Study Design	Intro to Statistics	19		16		14		18	
Th	18	(2,			15		20		17		15		19	
Fr	19			16			21		18	CK050 Principles of Public Health	16		20	
Mo	22			19			24	CK030 Biostatistics II	21		19			
Tu	23	ESP65 (morning), ESP61		20			25		22		20			
We	24	(afternoon)		21			26		23		21			
Th	25	, , , ,	22			27	24		22					
Fr	26			23			28		25		23	CK070 Core Competences Exam		
Mo	29	Bonding & Belonging (see		26			31		28	010100111111111111111111111111111111111	26			
Tu	30	detailed schedule)		27	aveas at				29	CK040 Clinical Epidemiology	27			
We	31			28	CK020 Biostat	tistics I			30		28		l	
Th				29							29		l	
Fr				30							30			

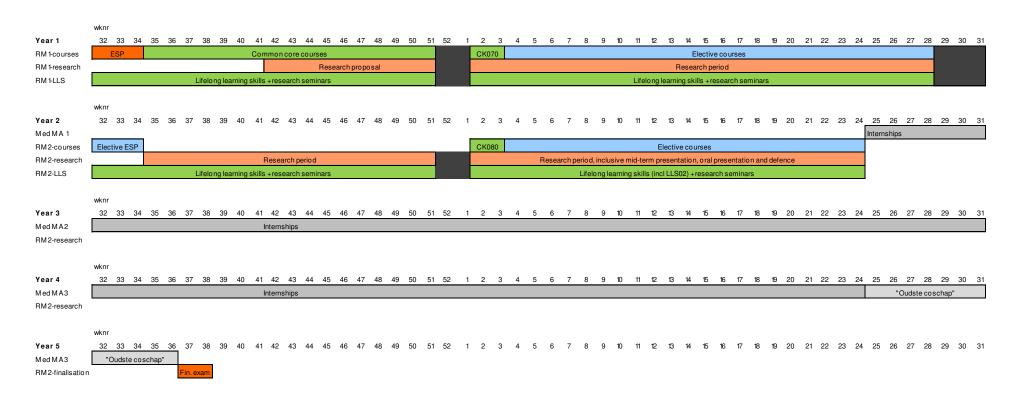
		Prerequisites			Prerequisites
CK001	=Review of Mathematics and Introduction to Statistics		CK010	=Study Design	
ESP01	=Principles of Research in Medicine and Epidemiology		CK020	=Biostatistics I	CK001
ESP43	=Principles of Genetic Epidemiology		CK030	=Biostatistics II	CK020
ESP11	=Methods of Public Health Research	ESP01	CK040	=Clinical Epidemiology	
ESP70	=Fundamentals of Medical Decision Making		CK050	=Principles of Public Health	ESP11 + ESP61
ESP65	=Practice of Epidemiologic Analysis		CK060	=Selected Topics in Epidemiology	All required ESP & fall core courses
ESP61	=Social Epidemiology	ESP01	CK070	=Core Competences Exam	All required ESP & fall core courses (except for CK060)

Bonding & Belonging (among others):					
LLS05	=Intervision				
LLS07	=Intercultural Communication (+ group number)				

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Annex II: Combination of the programme with the regular medical curriculum

The figure below shows the schedule of the Research Masters, combined with the medical curriculum at Erasmus MC.



Annex III: Recommended elective courses

In our programmes, students are free to personalize their programme by choosing electives from a broad range of courses. However, for students in the Master of Science in Health Sciences (70 EC) and the Research Master in Health Sciences (120 EC) programmes, the respective Associate Programme Director of each major has compiled a list of recommended elective courses that suit that major and will help you in your research. These recommended electives are listed below.

Epidemiology

- Causal Inference [ESP48, 1.4 EC points]
- Causal Mediation Analysis [ESP69, 1.4 EC points]
- Clinical Translation of Epidemiology [EL031, 2.0 EC points]
- Data Science in Epidemiology [ESP80, 0.7 EC]

Clinical Epidemiology

- Repeated Measurements [EL002, 1.7 EC points]
- Advanced Clinical Trials [EL013, 1.9 EC points]
- Advanced Analysis of Prognosis Studies [EL014, 0.9 EC points] or Markers and Prediction Research [ESP62,
 0.7 EC points] courses cover similar topics
- BROK course [not offered by NIHES] if applicable

Health Decision Sciences & Technology Assessment

Note that these first three courses should be followed in the order they are listed below, as the courses build on each other.

- Topics in Medical Decision-Making [EL004, 1.4 EC points]
- Using R for Decision Modelling, Simulation, and Health Technology Assessment [EL005, 1.7 EC points]
- Advanced Decision Modelling [EL006, 1.4 EC points]

The following courses are not offered by NIHES, but by the Erasmus School of Health Policy & Management:

- Pharmaceutical Pricing and Market Access [GW4575M, 5 EC]
- Measurement of Patient Preferences using Discrete Choice Experiments [GW4580M, 5 EC]
- Behavioural Decision Theory in Health [GW4548M, 5 EC]

Genomic & Molecular Epidemiology

- Linux for Scientists [EL016, 0.6 EC points]
- Introduction to Genome-Wide Association Studies [EL017, 1.4 EC points]
- Mendelian Randomisation [EL018, 0.9 EC points]
- An Introduction to the Analysis of Next-generation Sequencing Data [EL019, 1.4 EC points]
- Introduction to the Analysis of Population Proteomics & Metabolomics [EL020, 0.7 EC points]
- Introduction to the Analysis of Population Epigenomics & Transcriptomics [EL034, 0.7 EC points]

Public Health Epidemiology

- Qualitative Research Methods in Medicine [EL030, 1.4 EC points]
- Planning and Evaluation of Screening [EL022, 1.4 EC points]
- Public Health Across the Life Course [EL024, 2.0 EC points]
- Sustainable Public Health [EL025, 2.0 EC points]

Biostatistics

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- Competing Risks and Multi-state Models [EL001, 0.9 EC points]
- Repeated Measurements [EL002, 1.7 EC points]
- Bayesian Statistics [EL003, 1.4 EC points]
- Missing Values in Clinical Research [EL009, 1.7 EC points]
- Causal Inference [ESP48, 1.4 EC points]
- Joint Models for Longitudinal and Survival Data [ESP72, 1.4 EC points]
- Causal Mediation Analysis [ESP69, 1.4 EC points]

Medical Psychology

- Psychology in Medicine [EL026, 4.2 EC points]
- Preventing Failed Interventions in Behavioral Research [EL027, 1.4 EC points]
- The Placebo Effect [EL028, 1.4 EC points]
- Psychopharmacology [EL029, 1.4 EC points]

Annex IV: Contact details

Educational Service Centre

The Educational Service Centre takes care of the NIHES administration. It is situated on the second floor of the Education Centre (Eg207) of Erasmus MC. Erasmus MC and its medical faculty are located on the Hoboken campus of Erasmus University Rotterdam.

Visiting address

Educational Service Centre (ESC) Front Desk, 2nd floor Education Centre Wytemaweg 80 3015 CN Rotterdam The Netherlands

Phone: +31 (0)10 - 704 5555 Email: <u>nihes@erasmusmc.nl</u>

Postal address

NIHES administrative office (Team Graduate school)
Educational Service Centre (ESC)
Room Fe312
PO Box 2040
3000 CA Rotterdam
The Netherlands

Opening hours front desk NIHES: weekdays from 10.00 - 12.00 and from 14.00 - 16.00 hours (may be subject to change)

2nd floor Education Centre, Eg207

Phone availability: weekdays 09:00 - 12:30 and 13:30 - 16:30.

You can contact the Educational Service Centre (Team Graduate School) by email or phone or during the opening hours at the front desk. You can also make an appointment to speak to one of the programme officers.

Address NIHES

If you want your family and friends to write to you at NIHES, they should use the following address:

[your first name + family name]
c/o Netherlands Institute for Health Sciences
Educational Service Centre (ESC)
Room Fe312
PO Box 2040
3000 CA Rotterdam
The Netherlands

Coordinator Team Graduate School

Quarda Jaddi-Kassrioui Educational Service Centre Email: nihes@erasmusmc.nl Sebastiaan Vogel

Educational Service Centre Email: nihes@erasmusmc.nl

Programme Officers

Shaun Girigori Team Graduate School

Stephanie van der Lugt Team Graduate School

Sanne Ruseler Team Graduate School Omayra Curiel

Team Graduate School

Monica Buurmeester Team Graduate School

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NIHES staff

The NIHES staff is situated in Erasmus MC, NA-building, 20th floor. An appointment can be made by contacting the Educational Service Centre (<u>nihes@erasmusmc.nl</u>; phone 010-704 5555).

NIHES Director

Professor Myriam Hunink, MD, PhD Available by appointment

NIHES Coordinator

Annet Bout-Tellegen, PhD Available by appointment on Monday, Tuesday and Thursday

Programme Coordinators

Astrid Vrakking, PhD
Responsible for student affairs for MSc 70 EC and
Postgraduate students
Available on weekdays, except Friday

Kim Verdel, MSc Responsible for student affairs for Research Master students Available on Monday, Tuesday and Wednesday

Financial Coordinator

Lenie Kroon-Pelser, BA Available on weekdays except Wednesday

Marketing & Communication Executive

Salima Greenfield – Gader, MA Available on Monday, Tuesday and Thursday

Managing Director

Radjesh Manna, PhD Available by appointment

Administrative Support

Astrid Mahabier

Available on Monday, Tuesday and Thursday

Astrid van Driel, MSc Available on weekdays, except Friday

Confidential counsellor

For more information on the confidential counsellor, see section 2.4.5.

NIHES confidential counsellor Ed van Beeck, MD, PhD

Email: e.vanbeeck@erasmusmc.nl

NIHES (Associate) Programme Directors

Programme Director Research Master Health Sciences

Professor Myriam Hunink, MD, PhD
Professor of Radiology and Clinical Epidemiology
Erasmus MC
Department of Epidemiology

Associate Programme Directors

An Associate Programme Director is a senior faculty member and expert in one of NIHES' core disciplines. Each has final responsibility for the content and quality of the programmes in his or her discipline. The Associate Programme Directors also act as intermediaries between individual students and their supervisors (and are themselves sometimes supervisors). The Associate Programme Directors constitute the Committee of Programme Directors, which, jointly with the Programme Director of the Research Master Clinical Research and the programme coordinators (see above), is charged with the selection and admission of new students, with monitoring student progress and with the awarding of degrees.

Epidemiology

Professor Arfan Ikram, MD, PhD Professor of Neuro-epidemiology Erasmus MC Department of Epidemiology

Genomic & Molecular Epidemiology

Professor Fernando Rivadeneira, MD, PhD Professor of Translational Skeletal Genomics Erasmus MC Department of Internal Medicine

Medical Psychology

Professor Jan van Busschbach, PhD
Professor of Medical Psychology
Erasmus MC
Department of Psychiatry-section of Medical Psychology
and Psychotherapy

Health Decision Sciences & Technology Assessment

Professor Myriam Hunink, MD, PhD Professor of Radiology and Clinical Epidemiology Erasmus MC Department of Epidemiology

Professor Pieter van Baal, PhD Professor of Public Health Economics Erasmus University Rotterdam Erasmus School of Health Policy & Management

Clinical Epidemiology

Professor Myriam Hunink, MD, PhD
Professor of Radiology and Clinical Epidemiology
Erasmus MC
Department of Epidemiology

Public Health Epidemiology

Professor Frank van Lenthe, PhD Professor of Social Epidemiology Erasmus MC Department of Public Health

Biostatistics

Professor Dimitris Rizopoulos, PhD Professor of Biostatistics Erasmus MC Department of Biostatistics

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Clinical Research Advisory Board

The Clinical Research Advisory Board consists of the following people:

Programme Director Research Master Clinical Research

Professor M. Kamran Ikram, MD, PhD Professor of Clinical Neuro-epidemiology

Erasmus MC

Departments of Epidemiology and Neurology

Other members of the Clinical Research Advisory Board

Professor Meike W. Vernooij, MD, PhD
Professor of Radiology and Epidemiology
Professor of Radiology and Clinical Epidemiology

Erasmus MC

Departments of Epidemiology and Radiology

Virgil A.S.H. Dalm, MD, PhD

Clinical Immunologist

Erasmus MC

Erasmus MC

Department of Immunology

Department of Epidemiology

Professor Eric (H.) Boersma, ir., PhD

Professor of Clinical epidemiology of cardiovascular

diseases Erasmus MC

Department Thorax Epidemiology

Professor Leo J. Hofland, PhD

Professor of Experimental Neuroendocrinology

Erasmus MC

Department of Endocrinology

Daniel Bos, MD, PhD

Assistant Professor of Imaging of Arteriosclerosis

Erasmus MC

Departments of Epidemiology and Radiology & Nuclear

Medicine

Professor Maikel P. Peppelenbosch, MD, PhD Professor of Experimental Gastroenterology

Erasmus MC

Department of Gastroenterology & Hepatology

Mojca Jongen-Lavrencic, MD, PhD

Hematologist Erasmus MC

Department of Hematology

Adrie J.M. Verhoeven, PhD

Assistant Professor of Internal Medicine

Erasmus MC

Department of Internal Medicine

Professor Régine P.M. Steegers-Theunissen, MD, PhD

Professor of Periconception Epidemiology

Erasmus MC

Department of Obstetrics and Gynecology

Linetta B. Koppert, MD, PhD

Oncological surgeon

Erasmus MC

Department of Surgical Oncology

Professor Edwin H.G. Oei, MD, PhD Professor of Musculoskeletal Imaging

Erasmus MC

Department of Radiology

Professor Koen F.M. Joosten, MD, PhD

Professor of Nutrition and Metabolism of the Sick Child

Erasmus MC

Department of Pediatrics

Isabella Kardys, MD, PhD

Associate Professor of Cardiovascular Epidemiology

Erasmus MC

Department of Cardiology

Markus Klimek, MD, PhD

Vice-head Residency Training Programme

Erasmus MC

Department of Anesthesiology

Professor Ron (A.H.J.) Mathijssen, MD, PhD

Professor of Individualized Oncological Pharmacotherapy

Erasmus MC

Department of Medical Oncology

Marie Josee E. van Rijn, MD, PhD

Vascular surgeon Erasmus MC

Department of Vascular Surgery

Romy Gaillard, MD, PhD

Assistant Professor of Pediatrics

Erasmus MC

Department of Pediatrics

Netherlands Institute for Health Sciences

Nina H. Grootendorst-van Mil, MD, PhD Psychiatrist Erasmus MC Department of Psychiatry

Talitha C.M. Zuiverloon, MD, PhD Assistant Professor in Urology Erasmus MC Department of Urology Layal Chaker, MD, PhD Internist-endocrinologist Erasmus MC Department of Internal Medicine

Loes M. Zandwijk-Hollestein, PhD Clinical Epidemiologist Erasmus MC Cancer Institute Department of Dermatology

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Annex V: Definitions / descriptions

Advisor Clinical Research

The advisor Clinical Research is a member of the Clinical Research Advisory Board. The programme director of the Research Master programme Clinical Research assigns an advisor to a student. During part I of the programme, the advisor is the intermediate for the student, and facilitates the contacts with the different disciplines of the departments involved in the Clinical Research programme. The student and the advisor record relevant information in the Personal Education Programme (PEP). The advisor is an intermediary who discusses the training programme and openings for research with the student, proposes subjects and contact persons for research and facilitates contacts, sees to the monitoring aspect, and will lend a helping ear when problems arise. Additionally, they act as examiner for the final assessment of the research project for Clinical Research students.

Associate Programme Director

The Associate Programme Director is responsible for the content and quality of the programmes in his or her discipline. They assign and supervise the course coordinators, teachers and supervisors within their major, monitor the content and the quality of their major and advise the programme director. The Associate Programme Director can act as intermediary between a student and his or her supervisor. The Associate Programme Director, together with the programme coordinators is charged with assessing student progress and granting of certificates according to the relevant rules and regulations. All Associate Programme Directors are in charge of the organisation and coordination of the programmes. Additionally, they act as examiner for the final assessment of the research project for Health Sciences students. The Clinical Research programme has no Associate Programme Directors, as that programme does not contain any majors.

Clinical Research Advisory Board

The Advisory Board is in charge of the organisation and coordination of the Clinical Research programme and of monitoring the study progress of the students in the Clinical Research programme. The Advisory Board has regular meetings discussing the organisation of the programme, study progress of the students, and granting certificates according to the relevant rules and regulations.

NIHES Coordinator

The NIHES coordinator coordinates NIHES affairs and NIHES staff.

Programme Coordinator

The NIHES programme coordinators have a host of different roles. Some are responsible for student affairs, and are an intermediary between students and Associate Programme Directors. They monitor the progress of the students in the Master programme or Postgraduate programme. The programme coordinator is the point of contact for questions on the programme or the research phase. In Annex III you can find which programme coordinator is responsible for students from which programme.

Additionally, the programme coordinators are responsible for quality assurance, and the planning and coordination of NIHES courses.

Programme Director

NIHES has two Programme Directors: one for our programmes in Health Sciences, and one for our programme in Clinical Research. The Programme Director is responsible for the content and quality of their programme(s), and works closely with the NIHES staff to ensure our education is up to standard. The Programme Directors are professors in their disciplines, and fulfil the same tasks as the Associate Programme Directors in addition to their overall coordination.

Programme Officer

The programme officers are members of Team Graduate School of the Educational Service Centre (ESC) (see annex III for contact details). A programme officer takes care of the day-to-day organization of the study programmes, courses, graduations, etc. He or she carries out these activities in close collaboration with the programme coordinators, course coordinators, lecturers and other parties involved. Students can contact the programme officers with questions relating to their study programme, courses, registration, and visa.

Second assessor

The second assessor is selected from a pool of assessors who are skilled epidemiologists. This allows students to register with the Dutch Association for Epidemiology (Vereniging voor Epidemiology, VvE) as Epidemiologist A after completing their master degree. The second assessor is assigned by NIHES, which means students do not have to arrange a second assessor themselves.

The second assessor is involved in the assessment of the research project starting from the research proposal. To maintain independence in their assessment, they will not be involved in any direct supervision or be present for the presentations during the research phase (apart from the defence, if applicable). Instead, they will provide one-way feedback on the submitted research proposal and midterm presentation. The second assessor will also assess the final research paper and is present for the defence.

Student

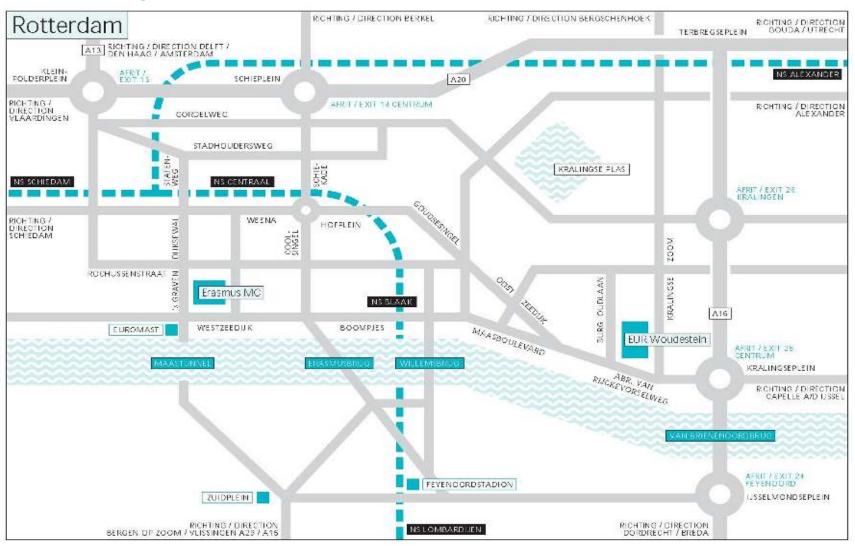
The student is participant in a Master programme or Postgraduate programme, or in an individual course.

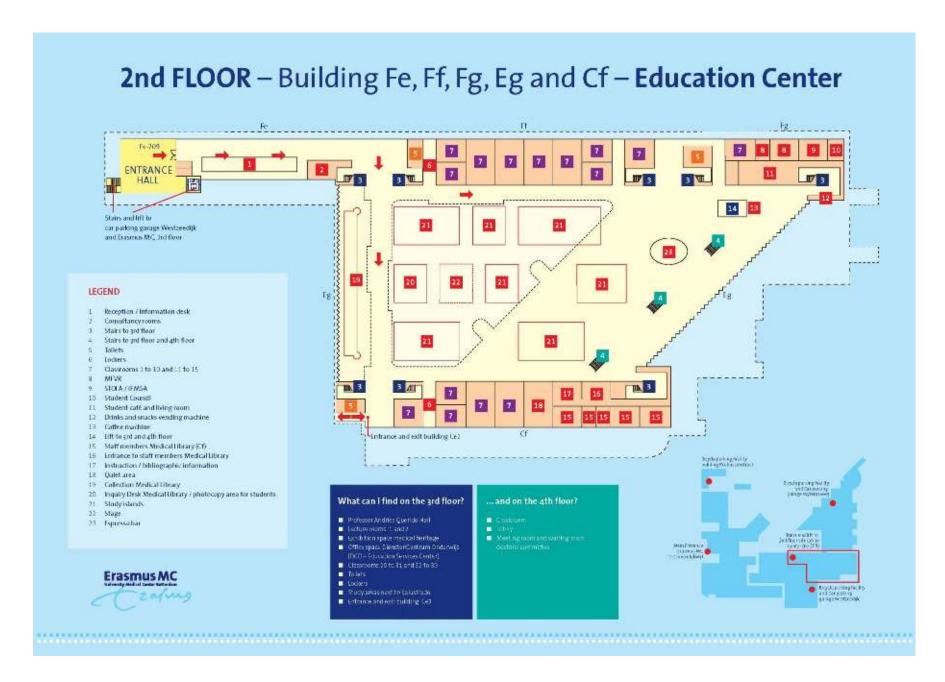
Supervisor

A student's supervisor for the research phase of the programme. He or she is employed at an institute participating in one of the Research Master programmes for at least 0.4 fte, holds a PhD degree and is well experienced (senior level) in one or more specific research subjects. The supervisor sees to the monitoring aspect and will lend a helping hand when problems arise during the research phase of the programme.

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Annex VI: Maps





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Annex VII: NIHES courses

Course descriptions are available on the NIHES website.

CORE COURSES		
Course code	Course title	
CK001	Review of Mathematics and Introduction to Statistics	
CK010	Study Design	
CK020	Biostatistics I	
CK030	Biostatistics II	
CK040	Clinical Epidemiology	
CK050	Principles of Public Health	
CK060	Selected Topics in Epidemiology	
CK070	Core Competences Exam	
CK080	Core Competences Video	

ELECTIVE COURSES		
Course code	Course title	
EL001	Competing Risks and Multi-state Models	
EL002	Repeated Measurements in Clinical Studies	
EL003	Bayesian Statistics	
EL004	Topics in Medical Decision-making	
EL005	Using R for Decision Modeling, Simulation, and Health Technology Assessment	
EL006	Advanced Decision Modeling	
EL007	Implementation Science	
EL008	Psychiatric Epidemiology	
EL009	Missing Values in Clinical Research	
EL010	Cardiovascular Epidemiology	
EL011	Child Psychiatric Epidemiology	
EL012	Pharmaco-epidemiology and Drug Safety	
EL013	Advanced Clinical Trials	
EL014	Advanced Analysis of Prognosis Studies	
EL015	Survival Analysis for Clinicians	
EL016	Linux for Scientists	
EL017	Introduction to Genome-Wide Association Studies	
EL018	Mendelian Randomization	
EL019	An introduction to the analysis of the next-generation sequencing data	
EL020	Introduction to the Analysis of Microbiome and Metabolomics Data	
EL021	SNPs and Human Diseases	
EL022	Planning and Evaluation of Screening	
EL023	Quality of Life Measurement	

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EL024	Public Health Across the Lifecourse
EL025	Sustainable Public Health
EL026	Introduction to Psychology in Medicine
EL027	Preventing Failed Interventions in Behavorial Research
EL028	The Placebo Effect
EL029	Psychopharmacology
EL030	Qualitative Research Methods in Medicine
EL031	Clinical Translation of Epidemiology
EL032	Principles in Causal Inference
EL033	Integration Module
EL034	Introduction to the Analysis of Epigenomics and Transcriptomics Data

	ERASMUS SUMMER PROGRAMME		
Course code	Course title		
ESP01	Principles of Research in Medicine and Epidemiology		
ESP03	Introduction to Data-analysis		
ESP09	Regression Analysis		
ESP11	Methods of Public Health Research		
ESP14	Clinical Trials		
ESP15	Topics in Meta-analysis		
ESP21	Pharmaco-epidemiology		
ESP25	Health Economics		
ESP39	Cohort Studies		
ESP40	Case-control Studies		
ESP41	Introduction to Global Public Health		
ESP42	Methods of Health Services Research		
ESP43	Principles of Genetic Epidemiology		
ESP48	Causal Inference		
ESP53	History of Epidemiologic Ideas		
ESP57	Genomics in Molecular Medicine		
ESP61	Social Epidemiology		
ESP62	Markers and Prediction Research		
ESP65	The Practice of Epidemiologic Analysis		
ESP66	Logistic Regression		
ESP68	Introduction to Bayesian Methods in Clinical Research		
ESP69	Causal Mediation Analysis		
ESP70	Fundamentals of Medical Decision Making		
ESP72	Joint Models for Longitudinal and Survival Data		
ESP74	Genome Wide Association Studies		
ESP75	Human Epigenomics		
ESP76	Value Based Healthcare, from theory to implementation		
ESP77	Advances in Clinical Epidemiology		

ESP78	Gender and Health
ESP79	Gender in Research: Workshops
ESP80	Data Science in Epidemiology

LIFELONG LEARNING SKILLS		
Course code	Course title	
LLS01	Introduction to Medical Writing	
LLS02	Scientific Writing in English for Publication	
LLS03	Personal Education Plan	
LLS04	LLS Portfolio	
LLS05	LLS Intervision	
LLS06	LLS Scientific Integrity	
LLS07	LLS Intercultural communication	
LLS08	LLS Leadership and Teamwork	
LLS09	LLS Body and Mind Connection	
LLS10	LLS Presentation Skills for all Audiences	
LLS11	LLS Operation Management	
LLS12	LLS Science Communication	
LLS13	LLS Negotiation Skills	
LLS14	LLS Networking and Influencing Skills	

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