Research Master in Health Sciences 120 EC

and

Master of Science in Health Sciences 70 EC

Study Guide 2023-2024

Erasmus MC Graduate School

Word of welcome

Welcome to the Erasmus MC Graduate School and in addition to the international students: welcome to the Netherlands!
We are delighted you have chosen the Erasmus University Rotterdam to study for your Master in Health Sciences. 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 the Erasmus MC Graduate School, 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 Master in Health Sciences the staff sincerely wishes you a valuable and inspiring time at the Erasmus MC Graduate School.

Professor Myriam Hunink, MD PhD

Programme Director Master in Health Sciences (NIHES)

Table of Contents

1. Studying at the Erasmus MC Graduate School

1.1 Introduction

The Master of Science-programmes collaborate with other Research Master programmes at Erasmus MC in the recently established Erasmus MC Graduate School. Previously, the Master of Science in Health Sciences and Clinical Research programmes used to be part of The Netherlands Institute of Health Sciences, also known as NIHES. Since 2022, all NIHES educational activities have been incorporated in the Erasmus MC Graduate School.
Together with several research departments and sections, the Erasmus MC Graduate School offers a range of research and training programmes in nine key disciplines:

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

Beside the Research Master in Health Sciences and the Master of Science in Health Sciences, our short courses attract researchers and health professionals from all over the world. In addition, the annual Erasmus Summer Programme in collaboration with Erasmus MC is being offered. 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) about the general rules and gives them detailed information about the Master degree programmes interested in. Information for current students can be found in our digital learning environment Canvas.

1.2 Programme overviews

The 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 following table shows a short summary of the offered programmes.

	Programme	Duration	EC	Requirements	CROHO
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	75042
Research Master in Health Sciences	Health Sciences (RM HS)	2 years	120	Bachelor's degree, no research / work experience	60120
	Health Sciences + Medicine	4 years (combined)	120	Medical students Erasmus MC	

1.2.1 Programme setup

The two 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 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.
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. 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.

1.3 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 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.
The programme offers the following majors:

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

Master of Science in Health Sciences - 70 EC points - 2023-2024			
Calendar	**Course code**	**Course**	**EC**
Fall 2023	CK001	Review of Mathematics and Introduction to Statistics	1,0
Fall 2023	CK010	Study Design	4,0
Fall 2023	CK020	Biostatistics I	4,5
Fall 2023	CK030	Biostatistics II	4,5
Fall 2023	CK040	Clinical Epidemiology	3,0
Fall 2023	CK050	Principles of Public Health	3,0
Jan 2024	CK060	Selected Topics in Epidemiology	3,0
Fall 2023	CK070	Core competences exam	1,0
Winter-spring 2024	LLS01	Introduction to Medical Writing	2,0
Sep 2023-Jul 2024	LLS04	Portfolio	0,2
Fall 2023-Jul 2024	LLS05	Intervision	0,4
Winter-spring 2024	LLS06	Scientific Integrity	0,3
Fall 2023	LLS07	Intercultural Communication	0,2
Fall 2023-Jul 2024	M-RES	Research	28,7
Jan 2024-Aug 2024		Elective courses*	14,2
		TOTAL EC points	**70,0**

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

This programme runs from September 2023 until August 2024 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.

1.3.1 Aims of the Master of Science in Health Sciences (70 EC points)

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.

1.3.2 Specific course information

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 by contacting the Examination Board.

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.

Exemptions for PhD students

The Erasmus MC Graduate School offers courses that provide highly similar content to the Health Sciences courses Introduction to Medical Writing, Intervision and 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 Health Sciences 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.

1.4 Research Master in Health Sciences (120 EC points)

The Research Master 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. The two-year year fulltime programme offers the following majors:

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

Research Master in Health Sciences & Clinical Research- 120 EC points - 2023-2025				
Calendar	**Course code**	**Course**	**EC Regular programme**	**EC Erasmus MC medical**
Fall 2023	CK001	Review of Mathematics and Introduction to Statistics	1,0	1,0
Fall 2023	CK010	Study Design	4,0	4,0
Fall 2023	CK020	Biostatistics I	4,5	4,5
Fall 2023	CK030	Biostatistics II	4,5	4,5
Fall 2023	CK040	Clinical Epidemiology	3,0	3,0
Fall 2023	CK050	Principles of Public Health	3,0	3,0
Fall 2023	CK070	Core competences exam	1,0	1,0
Jan 2024	CK060	Selected Topics in Epidemiology	3,0	3,0
Fall 2024	CK080	Core competences video	1,0	1,0
Winter-spring 2025	LLS02	Scientific Writing in English for Publication	2,0	2,0
Fall 2023-Jul 2025	LLS03	Personal Education Plan	1,1	1,1
Fall 2023-Jul 2024	LLS05	Intervision	0,4	0,4
Winter-spring 2024	LLS06	Scientific Integrity	0,3	0,3
Fall 2023	LLS07	Intercultural Communication	0,2	0,2
Sep 2024-Jul 2025		Lifelong Learning Skills elective courses	1,0	1,0
Fall 2023-Jul 2025	RM-RES	Research	65,8	
Fall 2023-Jul 2025	RM-MED	Research (medical students)		63,8
After MSc Med	FE	Final Exam (medical students)		2,0
Jan 2024-Aug 2025		Elective courses*	24,2	24,2
		TOTAL EC points	**120,0**	**120,0**

* Students are allowed to exceed the amount of elective EC points by max 2.8 EC

Year 1 = September 2023 until August 2024
Year 2 = September 2024 until August 2025

1.4.1 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.

1.4.2 Specific course information

Scientific Writing in English for Publication

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

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 relevant seminars.

Personal Education Plan

Every Research Master student is expected to make a Personal Education Plan (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.

1.4.3 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.

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. The courses involved are:

- The introductory Erasmus Summer Programme;
- Review of Mathematics and Introduction to Statistics (CK001)

- Study Design (CK010);
- Biostatistics I (CK020).

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).

Final Exam

The final exam is a concluding oral exam in 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;
- 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 on 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.

2. Course information

In this section, general information concerning the courses is described. Note that a revised curriculum has been implemented 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.
In each Master of Science programme, the following categories of courses and programme components are distinguished:

- **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 Master of Science students have the option to choose electives in the Erasmus Summer Programmes.
- **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. The elective courses have a course code starting with EL. Each major has a number of recommended electives.
- **Lifelong learning skills:** the Master programmes contain a number of required overarching skills courses. The Research Master programme also contains elective skills courses. The lifelong learning skills courses have a course code starting with LLS.
- **Research:** the research project is a major component in each programme. The course code for this programme component differs depending on your study programme.

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 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 Master of Science programme students have the option to choose electives during the ESP, where you will thus be sharing courses with health professionals with various backgrounds and specialisations. The key areas are biostatistics, clinical research, epidemiology, human genetics and health services, and public health research.

2.2 Core courses

All Master of Science students start 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 in the first week of the fall semester. 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 September.
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 since 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.

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. 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 in chapter 1, 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 opens in April. The final course list and necessary information about the registration procedures will be published in Canvas. 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 as well.

2.4 Lifelong Learning Skills

Master of Science 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. Both programmes contain a number of required lifelong learning skills courses. In addition, students in the Research Master programme are required to choose 1 EC point in elective lifelong learning skills courses. The lifelong learning skills courses are assessed in a combined portfolio. More information about the registration for these elective courses will be published in Canvas.

2.5 Practical course information

2.5.1 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. If you are unable to attend a course, please notify the Educational Service Centre by email (graduateschool@erasmusmc.nl) at least two weeks before the start of the course.

2.5.2 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 three weeks to complete the form.

2.5.3 Course materials and software

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

2.5.4 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 have 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. You can send your request to the Examination Board, (email: examinationboard@erasmusmc.nl) mentioning your student number. Please note that all information should be in English.

2.6 Assessment and examination policy

2.6.1 Assessment

Most 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, 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, the distinction 'cum laude' is no longer being offered 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.

2.6.1 Examination policy

The examination policy is laid down in the following documents:

- Teaching and Examination Regulation (TER) Research Masters Erasmus MC for the Research Master Health Sciences;
- Teaching and Examination Regulation (TER) MSc in Health Sciences for the MSc in Health Sciences (70 EC points).

You can find both documents in the General Information on Canvas and on the website of Erasmus University Rotterdam. 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 Health Sciences 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).

3. Research

The Master of Science programmes are characterized by a strong emphasis on research projects and cover 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 in Canvas, where you will find a page dedicated to the specific details of the research project for your study programme.

3.1 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 students will discuss their preliminary major. Based on the meeting, a supervisor will be assigned. Research Master students in the Clinical Research major 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. Erasmus MC PhD candidates in the 70 EC programme are exempted from this rule.

3.2 Supervision; your supervisor and second assessor

3.2.1 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 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 the permission of the associate programme director.

3.2.2 Second assessor

Your research paper is assessed by two people: your supervisor and your second assessor. 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 your supervisor, which means you do not have to arrange a second assessor yourself.
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.

3.3 Research project

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.

3.3.1 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.

3.3.2 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.

3.3.3 End presentation

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

3.3.4 Defence

Research Master students are required to defend their research paper after completion. The defence is not a requirement for students in the MSc in Health Sciences programme (70 EC) and the Postgraduate Programme.

3.3.5 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 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 the Erasmus MC Graduate School, 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)	MSc in Health Sciences (70 EC points)	Postgraduate Programme (70 EC points)
Research proposal	✓	✓	
Midterm presentation	✓	✓	✓
End presentation	✓	✓	
Research paper+ integration paragraph	✓ (1)	✓ (1)	✓ (2)
Defence	✓		
Final exam	Medical students Erasmus MC		

3.3.6 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 (Associate Programme Director of your major). For more information check the Teaching and Examination Regulations, which will be available to you in Canvas.

4. General information

4.1 Communication

The Erasmus MC Graduate School 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.

4.1.1 Website

The NIHES website contains general information about the programme, 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 news. The Erasmus Summer Programme has its own website.

4.1.2 Email

Once you are enrolled, the Education Service Centre only communicates with you via your student email address. Because of privacy, emails from other email addresses will not be answered. Please keep this in mind when contacting us via email.

4.1.3 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. 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.

4.1.4 Canvas

When commencing your studies, you will receive a login code for the Canvas learning environment, which is the same as your login code for OSIRIS. 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.

4.1.5 STiP

STiP 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.

4.2 Representation and support

4.2.1 Student representation

There are multiple levels of student representation at the Erasmus MC Gaduate School 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 (S*tudentenraad* 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. Health Sciences 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). Health Sciences students have active voting rights.

4.2.2 Support & advice

During your time at the Erasmus MC Graduate School, 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.

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 graduateschool@erasmusmc.nl.
If you are looking for advice regarding your study programme and the planning of your courses, you can contact your programme coordinator.

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 Study support - academic advisor | Erasmus MC | Erasmus University Rotterdam (eur.nl).

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 EUR website.

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.

Confidential counsellor

At the Erasmus MC Graduate School 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, a

confidential counsellor is appointed. Students can turn to the confidential counsellor when they are confronted with behaviour or circumstances they experience 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.

The Research Masters' confidential counsellor is Ed van Beeck, MD, PhD.
Email: e.vanbeeck@erasmusmc.nl

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.

4.3 Graduation

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

4.3.2 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. More information about legalisation can be found on the website of the Dutch Education Regulation DUO, under "Legalization of your Dutch educational documents".

4.3.3 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), 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 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.

4.4.4 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 the Erasmus MC.

4.4.5 Stay in touch!

Networking is key! The Erasmus MC Graduate School likes to follow her students and keep in contact with alumni through various communication channels such as LinkedIn, Facebook, YouTube and Twitter. The goal is to continue on building an esteemed network of alumni which was successfully set by NIHES. 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.

Find us on:
LinkedIn /NIHES – Netherlands Institute for Health Sciences
Facebook /NIHESnl
YouTube /NIHESnl
Twitter @NIHESnl
Instagram @nihes.nl

Annex I: Fall schedule 2023

NIHES Fall schedule 2023

All courses cover a full-time workload.

	SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER				JANUARY			
Fr	1			CK001 Review of Mathematics and Introduction to Statistics (self-study modules)									1		CK040 Clinical Epidemiology					
Mo	4	Introduction week			2		CK020 Biostatistics I						4	LLS14 group 2	CK050 Principles of Public Health		1	CHRISTMAS BREAK		
Tu	5	LLS07 Intercultural Communication Group 1-3, Day 1/2			3								5				2			
We	6	LLS07 Intercultural Communication Group 4-5, Day 1/2	LLS05 Intervision		4				1		CK030 Biostatistics II		6				3			
Th	7	LLS07 Intercultural Communication Group 1-3, Day 2/2			5				2				7				4			
Fr	8	LLS07 Intercultural Communication Group 4-5, Day 2/2			6				3				8				5			
Mo	11	CK010 Study Design			9	LLS09 day 1/2			6	LLS12 day 1/4			11				8		CK060 Selected Topics in Epidemiology	
Tu	12				10				7				12				9			
We	13				11				8	LLS14 group 1			13				10			
Th	14				12				9				14				11			
Fr	15				13	LLS09 day 2/2			10	LLS12 day 2/4			15				12			
Mo	18				16				13	LLS12 day 3/4			18		Study Week		15	LLS10		
Tu	19				17				14				19				16			
We	20				18				15				20				17			
Th	21				19				16				21				18			
Fr	22				20				17	LLS12 day 4/4			22		CK070 Core Competences Exam		19			
Mo	25				23	MID-SEMESTER BREAK			20		CK040 Clinical Epidemiology		25	CHRISTMAS BREAK			22			
Tu	26				24				21				26				23			
We	27				25				22				27				24			
Th	28				26				23				28				25			
Fr	29				27				24				29				26			
Mo					30	LLS13 group 1	CK030 Biostatistics II		27	LLS13 group 2										
Tu					31				28											
We									29											
Th									30											

Core courses

Code	Titel	Prerequisites
CK001	Review of Mathematics and Introduction to Statistics	
CK010	Study Design	
CK020	Biostatistics I	CK001
CK030	Biostatistics II	CK020
CK040	Clinical Epidemiology	
CK050	Principles of Public Health	
CK060	Selected Topics in Epidemiology	All Fall core courses
CK070	Core Competences Exam	All Fall core courses

LLS Courses (compulsory)

LLS05	Intervision
LLS07	Intercultural Communication

LLS Electives

LLS09	The Body-Mind Connection
LLS10	Presentation Skills for All Audiences
LLS12	Science communication
LLS13	Negotiation SKills
LLS14	Networking & Influencing Skills

The Introduction week is compulsory for all students.
CK001 is a self study course. CK020 and CK030 are offered in a hybrid setting. All other courses are offered in class or blended.
LLS Electives are only for second year Research Master students. These courses are offered fully in class with no possibility to join online and have a compulsory attendance.
CK060 Selected Topics in Epidemiology is a required core course, but is not included in the Core Competences Exam.

Annex II: 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

- 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]

Annex III: Contact details

Educational Service Centre

The Educational Service Centre takes care of the Erasmus MC Graduate School 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: graduateschool@erasmusmc.nl

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

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. You can also make an appointment to speak to one of the programme officers.

Master of Sciences programmes staff

Programme Director Health Sciences
Professor Myriam Hunink, MD, PhD

Coordinator Health Sciences
Sarah Edrisy, MSc

Programme Coordinators
Astrid van Driel, MSc
Kim Verdel, MSc

Financial Coordinator
Monique Stuijfzand-van der Pol

Managing Director
Annet Bout, PhD

Administrative Support
Astrid Mahabier

Staff Advisor
Omayra Curiel

Marketing & Communication Executive
Salima Greenfield – Gader, MA
Sifra Mol

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 the 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 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 Jeremy Labrecque, PhD
Erasmus MC
Department of Epidemiology

Genomic & Molecular Epidemiology
Professor Fernando Rivadeneira, MD, PhD
Professor of Translational Skeletal Genomics
Erasmus MC
Department of Internal Medicine

Clinical Research
Prof. Kamran Ikram, MD PhD
Professor of Clinical Neuro-epidemiology
Erasmus MC
Departments of Epidemiology and Neurology

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