



Supervisor guide

Research project

Health Sciences / Clinical Research





Introduction

Dear supervisor,

Thank you for your efforts in supporting and supervising our students during their research project! The research project is a major part of the master programme. Depending on their programme, our master students spend 1-2 years working on a research project, developing skills and using new-found knowledge to contribute to the scientific community.

The Health Sciences and Clinical Research master programmes are characterized by a strong emphasis on the research project. Students work on their research project over the course of their programme, culminating in a final research paper that is assessed by multiple assessors.

As supervisor, your role is to support and assess the students throughout their project. This supervisor guide gives an overview of the main tasks and responsibilities of the supervisor and the student, as well as information on the students' programmes and the place of the research project within the programme. The information is divided into several chapters, in order to make it easier to navigate.

If you have additional questions about what your role as supervisor entails, please feel free to contact the programme administration at osc.qs@erasmusmc.nl.



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Summary

This summary provides an overview of the most important points to keep in mind when it comes to supervising your students.

Main tasks

- Support student during their research project by providing learning opportunities and feedback.
- Assess student work at set times during research project.

Important things to keep in mind

- The student should be provided with a workspace at your department.
- The research project has a set amount of EC, depending on the student's master programme (see overview below). Keep this in mind when discussing the scope of the research project as this should approximately be in line with the amount of EC set for the project.
- Aside from working on their research project, students are required to choose and follow a number of elective courses. As most elective courses cover a full-time workload, students likely have very little time to work on their research project during the weeks they are participating in courses.
- As the student is in charge of their own research project, the initiative for appointments, assessments etc. is with the student.

Scope of research project

The student you are supervising over the course of their research project is either in one of the two-year research master programmes, or in the one-year Master of Science programme. Both types of programmes have similar demands, but students in the research master will spend more time on their research project than students in the one-year programme.

	Programme duration	EC for research project	Previous experience
Research Master	2 years 120 EC	65 EC 1820 hours	Bachelor's degree, no significant research experience
Master of Science	1 year <i>70 EC</i>	28 EC 784 hours	Master's degree, previous research experience



Research project overview

Students start their research process about halfway through their first Fall semester. They are first invited to a meeting with the associate programme director of their major of interest. In this meeting, the students discuss their research interests, and the associate programme director advises them on a possible supervisor, or for Clinical Research students, on a possible advisor. Following this meeting, it is the responsibility of the student to contact the potential supervisor/advisor to discuss the possibilities for their research project, and come to an agreement about the project. The student is required to inform NIHES once a supervisor has been found. The student can then start working on their research project.

The research project contains different components, depending on the programme the student is in. The following table shows an overview of which components are required for each programme and the approximate timeline with deadlines for each component.

	Research Master (120 EC)			MSc in Health Sciences (70 EC)	
Select supervisor		1 December		1 December	
Research proposal + presentation	YEAR 1	14 February		14 February	
Intermediate check-in	 	Between May – September Deadline 30 September	_		
Midterm report		December, before Christmas break	YEAR	15 April	
End presentation	AR 2	June, before handing in paper		June, before handing in paper	
Research paper	ΥĘ	1 July		1 July	
Defence		July, after research paper assessment			



Research project components

Select supervisor

Main workload: October/November

After the meeting between the student and the associate programme director (as discussed above), the student contacts potential supervisors in order to find a research project that suits their interests and that fits well within their programme. By discussing their options with potential supervisors, both parties come to an agreement on what the research project will look like. A number of things are important when deciding on the research project the student will be working on and who their supervisor will be:

- A supervisor needs to be a senior faculty member at Erasmus MC or Erasmus
 University Rotterdam with an appointment of at least 0,4 fte at Erasmus MC.
 Supervisors need to have considerable research experience (minimally at PhD level).
- Additionally, students can be assigned a junior (or daily) supervisor with whom they
 have more frequent contact and is more directly involved with supporting them
 throughout the project. However, the main supervisor carries the final responsibility
 for the student and the assessment of their work.
- Students need to be provided with a working space at the supervisor's department.
- The scope of the project needs to match the study load (amount of EC) set for the research project – see the summary page for an overview of the study load per programme.
- During weeks when students are participating in courses, their course work takes
 preference over their research work. It is therefore important to plan the research
 work accordingly.

Once the student has found a research project and supervisor, they share this information with programme management through OSIRIS Case. The programme management will do a final check to confirm the suitability of the supervisor and research project before the student can continue working on their research proposal.

After supervisors have been assigned, students can only change supervisors with permission from NIHES.

Research proposal

Main workload: February/March

At the start of their research project, students write a research proposal. The objective of this component of the research project is to help students formulate a relevant problem and translate it into a scientific question, formulating objectives and other details necessary to properly organize and complete their research project. The student's research proposal assessment is mainly focused on providing feedback on the following components:

- objectives;
- study design;
- data collection procedure;



- data analysis procedure;
- time schedule;
- presentation and discussion.

After the students have written their research proposal, they are required to present this proposal to their supervisor and a representative of their research group. The supervisor and representative then provide feedback on the proposal through the feedback form available to students in Canvas. Using this feedback, the student adjusts their proposal and uploads the revised version to OSIRIS Case, where the supervisor assesses whether the feedback was sufficiently integrated.

The student is then assigned a second assessor who provides them with additional feedback. As assigning second assessors can take some time, the student does not have to wait until this step is completed to continue working on their research project.

Step-by-step, the research proposal is assessed as follows:

- 1. The student sends their research proposal to the supervisor for approval;
- 2. The student presents their proposal to their supervisor and a representative of their research group.
- 3. Following the presentation, the supervisor and the representative complete the research proposal feedback form (available to the student in Canvas).
- 4. The student adjusts their proposal based on the feedback and submits the final version in OSIRIS Case.
- 5. The supervisor assesses the integration of the feedback in OSIRIS Case.
- 6. A second assessor is assigned to the student, who provides additional feedback on the proposal in OSIRIS Case.

Intermediate check-in (only required for RM students from 2024 onwards)

Main workload: between May-September

The intermediate check-in is a new component of the research project, and is only required for students in the two-year research master programmes. This check-in is not intended as an assessment of the student, but rather as a 'performance review' about halfway through the project to see whether everything is going well and to provide feedback on the way the student functions as a researcher.

The intermediate check-in can take place any time between May of year 1 and September of year 2, with the final deadline being 30 September. It is up to the student and supervisor to decide on the best timing to do this, also depending on the timeline of the project. Some projects may have a heavier workload at the start and a check-in can be done earlier, whereas other projects have a slower start and there may not be much to review until a bit later in time.

For the check-in, the supervisor and student will discuss the student's performance using the rubric that is used to assess the project performance at the end of the project. This way, both parties can have a good overview of which components in the rubric still need some work

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and which are going well. This review can then also be used to reflect back at the end of the project.

Step-by-step, the intermediate check-in is organized as follows:

- 1. The student schedules an appointment with the supervisor to discuss their performance.
- 2. The supervisor and student discuss the student's performance using the project assessment rubric, available to students in Canvas.
- The student uploads the filled out form in OSIRIS Case. Here, students will also be asked to answer a couple of questions about how they are doing and whether there are any issues.
 - Note: the answers of the student are not shared with the supervisor and are merely used to signal any potential issues.
- 4. Programme management checks all submitted forms and answers in order to signal potential issues.

Midterm report

Main workload: December/January

About midway through their research project, the student presents their research project thus far through both a presentation for their supervisor and a written report for their second assessor. The aim of the midterm report is to ensure the student is still on the right track and that they have made sufficient progress in their research project. The midterm presentation assessment is mainly focused on providing feedback on the following components:

- objectives;
- study design;
- · data collection procedure;
- data analysis procedure;
- results so far;
- potential issues;
- student performance during project;
- presentation and discussion.

The midterm presentation is assessed as follows:

- 1. The student writes a report detailing their progress thus far.
- 2. The student presents their research project thus far to the supervisor and a representative of their research group (not their second assessor).
- 3. Following the presentation, the supervisor and the representative complete the midterm presentation feedback form (available to the student in Canvas).
- 4. The student submit their progress report, presentation, and feedback form in OSIRIS Case.
- 5. The second assessor assesses the student's progress and provides additional feedback in OSIRIS Case.



End presentation

Main workload: May/June

At the end of your research period, the student is required to give a presentation about their research project and findings to their research department. As the end presentation takes place around the same time as the research project and paper assessment, it is not assessed separately. However, the supervisor will be asked to confirm that the student has completed their end presentation when assessing the research project. The goal for the end presentation is for the student to share the final results and conclusions of their research with fellow researchers, and to practice their presentation skills.

It is up to the student to ensure the presentation takes place before they submit their research paper for final assessment.

Note that this presentation is separate from the defence that is required of students in the two-year research master programmes.

Research paper + project

Main workload: June/July

At the end of their research project, students hand in a research paper, including all required elements for publication in an international English-language scientific journal with a good reputation in its field. As an attachment to this paper, the student is required to add an integration paragraph describing their research project and their specific role in the research, as well as elaborating on the way the elective courses they completed contributed to their research project.

The research paper is the main product of the research project, and together with the student's performance during their project it is the only part of the research that is graded with a numerical grade.

The requirements for the research paper are as follows:

- The paper should be <u>entirely</u> the student's own work, despite collaborating with their supervisor and their research group. The student is expected to write all parts of the paper themselves. If the paper is submitted to a journal for publication, it is therefore likely that the draft version submitted as a thesis cannot be the same version of the paper as the one submitted to the journal.
- The paper should include all required elements for publication in an English-language scientific journal with a good reputation in its field. This includes an abstract.
- There are no set guidelines for the layout of the paper, but the student should use a
 consistent reference style, such as AMA or Vancouver style. The most fitting style to
 use will mostly depend on which style is most commonly used in the specific research
 field.

In the event the research project culminates in multiple papers, the student is allowed to hand in a maximum of two papers. This can only be done under the following conditions:

1. The papers are written under the guidance of the same supervisor;

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- 2. The papers are a result of the same research project and the topics of the papers are sufficiently related;
- 3. The papers can be graded by the same assessors;
- 4. The student has permission from both their supervisor and programme management to submit two papers.

Students are also 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.

The research paper, project and (for Research Master students) defence are assessed as follows:

- The student writes their draft research paper, including an integration paragraph that details the role of the student in the research process, and submits this in OSIRIS Case.
- 2. The supervisor is asked to assess the following in OSIRIS Case:
 - a. Confirm that, to their knowledge, the student is the sole author of the paper;
 - b. Student's performance during the research project;
 - c. The submitted research paper;
 - d. The integration paragraph;
 - e. If applicable: in the event a significant level of plagiarism is detected, the supervisor is asked to assess these issues.
- 3. At the same time, the second assessor is asked to assess the submitted research paper and integration paragraph.

The steps following this part, depend on the programme the student is in.

For students in the one-year Master of Science in Health Sciences programme (70EC):

4. The submitted assessment is sent to one of the Associate Programme Directors for final approval, as they are appointed as examiner for the research project.

For students in the two-year Research Master programmes (120EC):

- 4. Following the assessment by the supervisor and second assessor(s), the student's defence session takes place with all assessors present. The defence lasts around 30 minutes and consists of a presentation by the student (10 minutes) and a discussion (20 minutes). Afterwards, the assessors discuss the performance of the student and grade this.
- 5. The supervisor assesses the defence in OSIRIS Case.
- 6. The second assessor(s) are asked to confirm the defence assessment in OSIRIS Case.
- 7. All components of the submitted assessment are sent to one of the Associate Programme Directors (Health Sciences) or the student's Advisor (Clinical Research) for final approval, as they are appointed as examiner for the research project.

PLEASE NOTE:

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- The defence for Research Master students can <u>only</u> take place if all assessments of
 the research paper, project and integration paragraph have been submitted in
 OSIRIS Case, as these assessments should not be influenced by the defence. If the
 work is not assessed by 12:00 (midday) the work day before the defence, the defence
 will be postponed.
- In the event of a significant disagreement between the different assessors on the quality of the research paper (grade difference of 1.1 point or more), the examiner decides on a final grade that lies between the already assigned grades and replaces these grades.



Roles

Throughout their programme and research project, students are supported and supervised by a number of people who each take on a different role. This chapter aims to provide an overview of the tasks and responsibilities for each role.

Supervisor

The supervisor is the main support for our students during their research project. Students perform their research project at the department of the supervisor and work together with them and other colleagues at the department to bring their project to a successful ending.

The supervisor is the main point of contact for the student, as well as their primary assessor. They provide the student with adequate and useful feedback throughout their project, and help the student learn and grow.

Although the main supervisor carries the final responsibility for the student and the assessment of their work, it is possible to assign a junior (or daily) supervisor who is more involved in the day-to-day supervision of the student. This junior supervisor does not have to meet the requirements that are set for the main supervisor (see chapter 'Select supervisor'), as long as the junior supervisor works under the supervision of the main supervisor.

Second assessor

After submitting their research proposal, students are assigned a second assessor who provides them with feedback on each component of their research project. This is done from a distance – the second assessor is not involved with the research project itself. Second assessors are assigned by the Associate Programme Director of the student's major based on the student's research topic, and are chosen from a pre-compiled list of possible second assessors.

The main task of the second assessor is to provide objective feedback and to ensure the research is of sufficient epidemiological nature. The research paper, along with the content of the rest of the programme allows our students to register a Epidemiology A with the Dutch Association for Epidemiology (VvE). It is therefore important that the second assessor holds a VvE registration (either A or B).

The guide for second assessors, with further information on their role and duties, is available via <u>our website</u>.

Associate Programme Director

Each of the different majors in our programme has their own Associate Programme Director (APD).

10-minute meetings: During the first semester of their programme, each student
meets with the APD of the major they have expressed interest in when applying for
the programme. In this short meeting, the student and the APD discuss the student's

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research interests. Based on this, the APD proposes a number of possible suitable supervisors for the student's research project. In the case of students in the Clinical Research programme or major, the APD matches the student with one of the advisors from the Clinical Research Advisory Board who will in turn help them find a suitable supervisor.

2. Examiner: The APD also plays an important role in the final stretch of the research project, as the APD acts as examiner for the research project. It is a requirement that all assessment in our programme falls under the responsibility of an examiner appointed by the Examination Board. This role is performed by the APD for two reasons: firstly, there are a number of requirements that examiners need to meet, which not all supervisors meet. Secondly, by being examiner for a larger number of students, the APD can get a better indication of the fairness and quality of the assessment made by the assessors.

Advisor (Clinical Research only)

One of the major differences between the Health Sciences and Clinical Research programmes, is that research performed by Clinical Research students often takes place in the clinic. To ensure that these students still have enough support in their research project, they are each assigned an advisor. These advisors are members of the Clinical Research Advisory Board, made up of clinicians who are also highly experienced researchers.

The advisors provide secondary support during the research project, and act as second assessor for their students. Students in the Clinical Research programme are required to meet with their advisor a number of times over the course of their research project.

The guide for advisors, with further information on their role and duties, is available via <u>our website</u>.

Student

Of course, the main role in the research project is held by the student themselves. The research project is their work, and it is therefore important to note that the student carries responsibility for this project and their functioning within the project as well.

It is the responsibility of the student to keep track of what is required of them, including corresponding deadlines. The student is also responsible for proper communication between all parties involved, as well as for organizing timely meetings with their supervisor and, if applicable, advisor.

Information on the requirements for their research project is provided to students via Canvas. If anything is unclear or the student runs into any issues, they should contact Team Graduate School at graduateschool@erasmusmc.nl.

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Additional information

Personal Education Plan (PEP)

This paragraph is only relevant for supervisors of students in the two-year research master programmes (120 EC).

Every Research Master student is expected to make a Personal Education Programme (PEP): a document in which they plan their personal programme. The PEP covers meetings with their supervisor, planning elective courses, and research seminars, and is concluded by writing a reflection on the student's personal and professional development over the course of their study programme. The student is responsible for organising the meetings according to the PEP, for adding the summaries and for obtaining signatures from their supervisor where necessary.

As part of the PEP, students are required to attend 24 research seminars over the course of their programme. Attended research seminars must be registered in the PEP, by collecting proof of attendance or a signature of the lecturer of the research seminar. If this is not possible, it is also allowed for the supervisor or advisor to sign for a seminar. Students can download the PEP template from the NIHES General Information page in Canvas.

As part of the Personal Education Plan, students are required to write a reflection on their personal and professional development over the course of their programme. This reflection is then discussed with the supervisor, and the supervisor is asked to assess the student's ability to reflect on their development using the rubric included in the PEP.

Portfolio

This paragraph is only relevant for supervisors of students in the one-year Master of Science programme (70 EC).

At the end of their programme, students are required to write a reflection on their personal and professional development over the course of their programme. This reflection is then discussed with the supervisor, and the supervisor is asked to assess the student's ability to reflect on their development using the rubric available to students in Canvas.

Majors

The Research Master in Health Sciences and the Master of Science in Health Sciences programmes allow students to graduate from a number of majors. The majors do not include any required courses specific to the major, and are solely based on the topic of a student's research project. The major remains somewhat flexible throughout the programme, and is not definite until the student completes their research project and paper. This does not mean that the student can change majors at will, but they do have some flexibility in this. The Health Sciences programmes offer the following majors:

- Biostatistics
- Clinical Epidemiology



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

The student is asked to indicate their preliminary choice of major when submitting their research proposal in OSIRIS Case, and again when submitting their midterm documents. The choice of major is finalized and confirmed by one of the Associate Programme Directors during the assessment process of the final research paper.

Elective courses

Students are able to further customize their programme by choosing elective courses that match their interests and professional needs. Elective courses are scheduled during the winter-spring semester, and during the Erasmus Summer Programme(s) in the month of August. Registration for winter-spring electives takes place during the prior fall semester, registration for elective courses in the ESP opens in spring. Students are free to choose their elective courses, bar any specific prerequisites or scheduling conflicts.

It is also possible for students to complete elective courses at other school or institutes (both within and outside of Erasmus MC), provided that they obtain permission from their supervisor and the examination board and the course is not a skills course. An additional number of requirements for external electives is available to students on the General Information Canvas page they have access to.

Graduation

The yearly graduation ceremony is a long-standing tradition for the Health Sciences and Clinical Research programmes. An important part of the graduation day are the sessions in which supervisors give a personal address to students talking about their research work. Keep in mind that supervisors are expected to attend these sessions, which take place usually in the last week of August.

Traveling abroad during research project

If your student travels abroad during their research project for purposes related to their research or study programme (e.g. elective courses), they are required to notify you of this. This is also the case for short trips. The reason for this is that in case of emergency situations, the university has a duty of care for our students if they are traveling for reasons related to their studies.

In the event of emergency situations such as natural disasters, the programme will contact all supervisors to inquire whether any of our students are affected.



Publication

It is important for supervisors and their student to discuss their expectations for (co-) publication of the paper at the start of the project, to avoid disputes at a later stage. Guidelines for authorship and research integrity are published in the Erasmus MC Research Code, which can be found on Agora (the Erasmus MC intranet).

If the research paper written by a student leads to a publication, the supervisor needs to make sure to mention the affiliation with the Erasmus MC Graduate School, in the acknowledgements or otherwise.

OSIRIS Case

NIHES uses the online tool OSIRIS Case for the research assessment procedure, for all programmes and majors. All assessors (supervisors, second assessors and members of the Clinical Research Advisory Board) have to register their assessment in OSIRIS Case. In order to log into and use this tool, assessors can use their microsection number and password. OSIRIS Case sends out an email when action is required in the research assessment procedure. More information about OSIRIS Case will be send out to all assessors before first use.

In case of conflict or other issues

We aim to provide a problem-free research period for our students. However, it is important to know what the options are in case you or the student do run into any issues.

The student's first point of contact is their supervisor, and we advise students to initially discuss any questions or problems with them. If you and your student are unable to solve your problems together, or the student has issues with their supervisor or wider research group, either the supervisor or the student can contact the programme coordinator as they will be able to provide further help. The programme coordinator can consult the (associate) programme director when necessary.

Note that a confidential counsellor is available, that students can turn to when confronted by behaviour or circumstances they <u>experience</u> as unwanted, such as (but not limited to) aggression and/or violence, (sexual) intimidation, bullying, discrimination, stalking, or unequal treatment. Information shared with the confidential counsellor is confidential and will not be shared with others without your explicit permission.

Contact information for the programme coordinator, as well as the confidential counsellor, can be found on STiP, or contact osc.gs@erasmusmc.nl. Please do not hesitate to contact us, as we are here to help our students succeed! Additional resources with regard to support for students can be found on STiP as well, such as contact information for the study advisors.

In addition to the above, the rights and obligations of our students, examiners and of the programme are outlined in the following documents:



- Teaching and Examination Regulations
- Rules and Regulations of the Examination Board
- Student Charter