



Universiteit Utrecht



UMC Utrecht

# Master Research Project

## Guide for supervisors



**Utrecht University**

**Graduate School of Life Sciences**

November 2015

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## Summary (Quick guide)

The main part of the training of Master's students within the Graduate School of Life Sciences (GSLs) at Utrecht University (UU) consists of one or two research projects. The Graduate School of Life Sciences maintains a high standard of education. With many research projects being supervised both inside and outside the UU and UMC Utrecht, the uniform assessment of these projects is a major challenge. Although the majority of the non-UU/UMCU projects are carried out at renowned and excellent research groups, each institute / country has its own standards when it comes to assessing student research projects. In order to ensure a uniform and high standard of education, including assessment, we hereby provide a guideline for supervision and assessment of the research projects performed by GSLs students.

### Start of research project

The student can only start his/her research project after:

- (s)he and his/her supervisors have received an email from the Research Project Coordinator, confirming the approval of the Board of Examiners (BoE).
- The student is responsible for arranging his/her own visa, accommodation, insurance and financial support, however your help as a supervisor is appreciated.

### Supervision terminology and responsibilities

#### The Examiner:

- has final responsibility for the grade of the research project.
- is affiliated to Utrecht University or UMC Utrecht as a full, associate (UHD) or assistant (UD) professor with a tenured position. Professors on a UU/UMCU special chair (bijzonder hoogleraar), but in daily life affiliated to a non-UU/UMCU institute, can also act as examiner.
- Post-docs, PhD candidates, and professors not affiliated to UU / UMCU **cannot** act as examiner.
- In case of a project inside UU/UMCU, the UU/UMCU examiner will grade the research skills, written report and final presentation and (s)he determines the final mark in close consultation with the daily supervisor and the second reviewer.
- In case of a project outside UU/UMCU, the UU/UMCU examiner will grade the written report and final presentation<sup>1</sup> and (s)he determines the final mark in close consultation with the supervisor host institute. We ask you to stay in touch with the student at least once every two months.

#### The Daily supervisor (in case of a project at UU/UMC)

- is responsible for the daily supervision of the MSc student during his/her project.
- works at the institute where the project is carried out.
- does not grade the research skills, written report and presentation him/herself, but will advise the examiner on the grades.
- must be sufficiently capable of supervising an MSc student. If a the daily supervisor is still rather junior (e.g. PhD candidate or postdoc) (s)he must be supported by a senior scientist (e.g. his/her own supervisor).

#### The Supervisor host institute (in case of a project outside UU/UMCU):

- is responsible for the daily supervision of the MSc student during his/her project.
- works at the institute where the project is carried out.
- grades the research skills, written report and presentation.
- must be sufficiently capable of supervising a MSc student. If a the (daily) supervisor at the host institute is still rather junior (e.g. PhD candidate or postdoc) (s)he must be supported by a senior scientist / staff member (e.g. his/her own supervisor).

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<sup>1</sup> In case of a research project outside UU/UMCU the final oral presentation should therefore be given both at the host institute and in the group of the UU/UMCU examiner.

#### The Second reviewer:

- should only be appointed for projects inside UU/UMCU. For projects outside UU/UMCU both examiner and supervisor host institute grade the report and presentation, therefore a second reviewer is not required.
- is a senior scientist (not a PhD candidate or postdoc) who is **not** directly involved in the research performed. Ideally, a second reviewer is a staff member from a different group than the examiner.
- Evaluation of the research report and final oral presentation by a second reviewer is mandatory.

#### **Length of the project and extension**

- The final presentation and the final written report must be delivered within three months of the end of the defined research project period.
- Research projects can be extended with 6, 9 or 12 credits from the elective component.
- The student should apply for this extension before the start of his/her research project. This can be pointed out on the application form.
- After the research project has already started, it can only be extended with the elective component as an exception. In this case the student should apply for the extension, well before the start of the extension, by handing in a letter to the Board of Examiners with a formal request and signed by examiner, programme coordinator and student.

#### **Contents of the research project**

- A research project consists of several key stages: drawing up a timetable, reviewing literature, drawing up a research plan, carrying out experiments / collecting data, data analysis, writing the report and presenting orally.
- Participation in group meetings and other group activities are part of the research project.
- Reports should be written in English and contain a summary specifically aimed at informing the general audience about the content of the research project (laymen's summary – in Dutch or English, 500 words, the target audience is able to understand Biology at high school level).
- All students have to present their work orally (in English) to the research group of their examiner at Utrecht University / UMCU (and, if applicable, also at the external host institute).
- *For more information about the content of the research projects please read chapter 4 of the [Master Research Project Guide for supervisors](#).*

#### **Interim assessment (feedback during project)**

- A mandatory evaluation meeting between student and examiner, and preferably also the daily supervisor, should take place two or three months after the start of the research project. Please note: this interim assessment conversation is different from regular work discussions.
- In case of a research project outside UU/UMCU the interim assessment meeting is between the supervisor host institute and the student. The examiner must be informed about the outcome of this meeting (e.g. by sending a copy of the signed report via e-mail).
- During the evaluation meetings the student receives feedback on his/her work, progress and performance. We strongly advise you to use [Rubric about research skills](#) as a tool to discuss the applicable strong points and points of improvement of the student.
- Afterwards the student has to either hand in the highlighted rubric or write a short report (½ A4) summarizing for which criteria (s)he is on the right track, and which parts need more attention. (S)he can use [this form](#) to write his/her report.
- The highlighted rubric or report has to be signed by the examiner (project inside UU/UMCU) or the supervisor host institute (project outside UU/UMCU).
- It is important to evaluate the work and progress of the student on a regular basis. Evaluation meetings can be scheduled more often, if preferred.
- *For more information about the supervision of the research projects please read chapter 5 of the [Master Research Project Guide for supervisors](#).*

## Fraud and plagiarism

Fraud or plagiarism is absolutely not allowed and will be dealt with as described in the Education- and Examination Regulations. The examiner:

- has the responsibility to ensure that no fraud or plagiarism took place. When you find or suspect that your student is committing fraud or is plagiarizing during his/her research project, this must be reported to the Board of Examiners (BoE). You are invited to contact the BoE first for advice: [more information on how to deal with plagiarism or fraud](#).
- should check the final research reports for plagiarism using Ephorus, or an alternative comparable plagiarism checker.
- When the reported percentage of plagiarism in Ephorus is >10%, but there is no case of plagiarism, a motivation written by the examiner explaining this should accompany the assessment form. The student may only submit the assessment form of the research project if the summary of the Ephorus plagiarism check is attached to the assessment form.

## Final assessment

At the end of a research project, the student is expected to have met the [learning outcomes](#). In order to assess whether the student has achieved these learning outcomes we strongly advise you to use the Rubrics for [research skills](#) (60% of final grade), [report](#) (30%) and [presentation](#) (10%). All three elements have to be awarded at least a 5,5 in order for the student to pass the final examination of the project.

In case of an project [inside](#) UU/UMCU, the assessment is performed by the examiner in close consultation with the daily supervisor and a second, independent reviewer (see 'Supervision terminology and responsibilities').

In case of a project [outside](#) UU/UMCU, the supervisor host institute<sup>2</sup> grades all three components. The examiner and supervisor host institute should contact each other in order to make sure that the assessment of all components are performed according to the guidelines of the GSLS-UU.

- First, the supervisor host institute determines the grades according to his/her own marking system (e.g. Anglo/Saxon marking (F-A<sup>+</sup>)).
- Next, the supervisor host institute consults the UU/UMCU examiner. The examiner converts the grade according to the Dutch marking system. The conversion table is available [here](#).

If the examiners and second reviewers or host supervisors marks differ by 2 or more points, the Board of Examiners should be notified by the examiner.

## Completion of the research project

- The student will give a copy of the report to his/her examiner and second reviewer or supervisor host institute.
- The examiner and second reviewer must complete the assessment within 10 working days after the student has handed in his/her (final) report and gave his/her oral presentation, by filling in and signing the assessment form. To make sure there are no delays, make agreements with your student beforehand about the dates for handing in his/her final report / presentation.
- The student should deliver the following to the Administration Office as soon as possible:
  - signed assessment form, including the attached evaluation form;
  - summary of the Ephorus plagiarism check, provided by his/her examiner (if percentage is >10% a written motivation from examiner should also be included);
  - written motivation for the final grade from and signed by the examiner (for **all** grades, not just  $\leq 6$  or  $\geq 8.5$ );
  - PDF file of the report (via email to the Administration office).

## Problems or questions and further information

In case of any problems or questions, contact the [programme coordinator](#) first, or otherwise the [academic counsellor](#) or [research project coordinator](#).

All official regulations of the GSLS are recorded in the Education and Examination Regulations, the Rules and Regulations and the Student's Charter, which can be found [here](#). In our [Study Guide Life](#)

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<sup>2</sup> If the supervisor host institute is still rather junior (PhD candidate or postdoc), (s)he must be supported by a senior scientist (e.g. his/her own supervisor).

Sciences guides are available about [research projects](#) as well as [writing assignments](#) and for both students as well as for supervisors.

## Communication

This guide is intended for all academic staff supervising students of the Graduate School of Life Sciences undertaking a research project as part of their Master's degree programme. This guide provides directions for new supervisors and can be used as a reference for experienced supervisors. A corresponding guide for students is available as well.

All official regulations are recorded in the Education and Examination Regulations, which can be found on the [website](#) of the Graduate School of Life Sciences.

This guide has been compiled with the utmost care, but is for informational purposes only and no rights can be derived from its contents. If there are any inaccuracies please inform one of the editors, [Kirsten Boersma-van Nierop](#) or [Els van der Vlist](#).

# 1. Introduction organisation

## 1.1. The Graduate School of Life Sciences

The Graduate School of Life Sciences (GSLs) at Utrecht University combines research training and education for Master's and PhD students, incorporating theory and practice at both levels and allowing overall quality control and consistency. All research Master's programmes at the school are linked to renowned Utrecht research institutes and research schools within Utrecht University. In the programmes the expertise and educational facilities of the Faculty of Science – departments of Biology, Chemistry, and Pharmaceutical Sciences – are combined with the clinical research and education of the Faculties of Medicine (University Medical Centre Utrecht - UMC Utrecht) and Veterinary Medicine.

The GSLs falls under the responsibility of the Deans of the three participating faculties (Faculties of Medicine, Veterinary Medicine, and Science). The Deans have appointed a daily Board of Studies for management of the GSLs.

## 1.2. Master's programmes

The GSLs offers 14 research Master's programmes<sup>3</sup>. Although students can be registered at either the UMC Utrecht (Biomedical Sciences, Health Sciences, Neuroscience and Cognition) or the Faculty of Science (Biological, Chemical, Pharmaceutical Sciences and Science and Business), the rules and regulations are the same for all.

All Life Sciences Master's programmes comprise 120 credits in total (except Epidemiology Postgraduate, 90 credits). Credits are assigned according to the European Credit Transfer System (ECTS), in which 1 credit is equal to approximately 28 hours of study (one week equals 1.5 credits). A major part of all Master's programmes is the research project. Most Master's programmes encompass two research projects, with the exception of Epidemiology (Postgraduate), Biomedical Image Sciences and Science and Business Management (one research project). Furthermore, a student has to attend an introduction week, follow one or more specific theoretical courses, write a writing assignment and report on at least 10 Life Sciences-seminars. Finally, the programme contains an elective component, which a student can use to fill in any gaps in his/her background knowledge, to follow extra courses, extend their research projects or to perform a mini-research project e.g. to learn an extra technique.<sup>4</sup>

## 1.3. Research projects

The research projects will be performed under the guidance of experienced scientists. The minor project has a load of 33 credits and takes approximately 6 months, including writing the report and orally presenting the project. The major project usually has a load of 51 credits and takes approximately 9 months, again including writing the report and orally presenting the project.

## 1.4. The role of a supervisor in research projects

The supervisor is responsible for coaching the student accordingly. The main aim of the supervisory process is to offer a tailor-made approach to the student's needs, aimed in particular at the relationship between the student and the supervisor. No two students are the same. Each student has different supervisory needs in different areas. Needless to say, the student's own contribution and attitude are central issues. Nevertheless, the supervisor is ultimately responsible for creating the right ambiance, supporting the student in a right way, and drawing up agreements.

The essence of supervising is to gradually transfer responsibility for the learning process to the student. The more efficient and pleasant the supervisory process, the better the results for both

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<sup>3</sup> Biofabrication; Biology of Disease; Biomedical Image Sciences; Cancer, Stem Cells and Developmental Biology; Drug Innovation; Environmental Biology; Epidemiology; Epidemiology Postgraduate; Infection and Immunity; Molecular and Cellular Life Sciences; Neuroscience and Cognition; Regenerative Medicine and Technology; Science and Business Management; Toxicology and Environmental Health.

<sup>4</sup> The contents of the Master's programmes are written down in the Education and Examination Regulations, which can be found on the [study guide](#) of the Graduate School of Life Sciences.



student and supervisor and the better the contacts. Under such conditions, students dare to ask more and learn more, which produces better learning as well as better research.

### **1.5. Scientific integrity**

When a student conducts a research project he/she enters the world of scientific research, which comes with the scientific code of conduct, based on principles of proper scientific behaviour. As a guideline the GSLS follows the principles of scientific integrity, as described in the *European Code of Conduct for Research Integrity* (Pieter J.D. Drenth, 2010).

#### ***Fraud and plagiarism regulations***

Utrecht University takes fraud and plagiarism very seriously. It will not be tolerated if a student forges responses from questionnaires or research data, or includes data or sections of text from others in a writing assignment or research project report without quoting the source. The examiner should scan all reports for plagiarism, usually by the plagiarism-detection programme *Ephorus*. Any act of fraud or plagiarism should be reported to the Board of Examiners (see paragraph 5.6). Those (co-) committing fraud or plagiarism will be punished by the sanctions described in the Education- and Examination Regulations, varying from invalidation of a paper and a record in OSIRIS to permanent termination of registration to the programme. Furthermore no Cum Laude classification can be obtained. Please do not hesitate to contact the Board of Examiners (see Chapter 6) first for informal discussion on the case before taking the formal steps.

#### ***Copyrights and publication***

Research projects of Master's students are most often performed within the framework of a larger research project. As such students should be aware of consequences of publication of their work, also during the writing phase. Please make agreements on this topic with the student on the application form.

As to copyrights (*auteursrecht*), by signing the application form the student declares to transfer the copyright of any and all products, including the tangible and intellectual products, of the research project to Utrecht University, the UMC Utrecht or the host institute. The rights of the student by scientific standards to be a co-author of publications or to be otherwise acknowledged are still recognized. The student's contribution may be acknowledged in different ways. Not only does this depend on the amount of data/texts used, but it also depends on the quality of the work and their level of independence during the project. The student may be named in the acknowledgments, the report/writing assignment may be used as a literature reference or you may ask the student to be a co-author for an article.

Any questions regarding these issues should be addressed to the head of your research group.

## 2. Rules and guidelines for the research project

### 2.1. Rules governing research projects

The research projects of the GSLS Master's programmes are governed by a number of rules and guidelines. All official regulations are recorded in the Education and Examination Regulations, the Rules and Regulations of the Board of Examiners and the Student's Charter. A summary of the regulations is written down in the quick guide (p.2). The rules and guidelines may be subject to (interim) changes. The latest version of the Education and Examination Regulations, the Rules and Regulations, the Student's Charter and this guide is available on the [study guide of the GSLS](#).

### 2.2. Rules on supervision

The supervisor's role is to supervise the student in developing the abovementioned academic skills, both on professional and personal level. The supervisor is responsible for proposing a project that is of a sufficient level and that enables the student to achieve the learning outcomes. The student is responsible for its own learning process. Students undertaking a research project are entitled to approximately 5% supervision time. Hence, the student can expect to receive at least 2 hours of supervision per week as an indication.

The supervisor is responsible for providing the requisite materials and equipment and for arranging a suitable workplace, a (shared) computer, and other research project-related issues. The supervisor is responsible for the student's safety in the laboratory.

A staff member functions as the examiner, who is responsible for the academic level of the project. In general, a post-doc or *experienced* PhD student can act as daily supervisor for the research project. The examiner will determine the grade for the research component of the project, after close consultation with the daily supervisor and, if necessary, after having consulted other group members.

Besides the examiner, a second reviewer should be involved in the assessment of the report and the final presentation. The second reviewer is a staff member of Utrecht University or UMC Utrecht and an expert in the field but not involved in daily supervision of the student.

In case of an external project, it is compulsory that the research project is supervised also by an examiner from the GSLS. The host institute provides the daily supervisor, who grades the practical work and functions as the second reviewer in this case. No second reviewer is required since both UU examiner and the supervisor host institute grade the work. A UU or UMC Utrecht examiner is involved as follows:

- Agrees with the proposed research project and with the host institute being of sufficient academic level;
- Acts as distant-supervisor: contacts the student and the supervisor in host institute during the project period to be informed about progress;
- Grades the written report and the final presentation. NB: The on-site supervisor grades the research skills, written report and final presentation. The examiner will consult the on-site supervisor closely on determining the final mark.
- Is responsible for the final mark.

*In all situations, the examiner from Utrecht University or UMC Utrecht (staff member or head of the research group) is consequently responsible for the research project (contents/planning of the project) and for the final grade.*

### 2.3. Approval of a research project

Like any other part of the Master's programme, the quality and suitability of the projects is assessed by the Board of Examiners, this assessment is done before the start of the project. After discussing the project with the supervisor and examiner, the student has to fill in the [application form](#) to ask for approval by the Board of Examiners. The examiner, external/daily supervisor and the programme coordinator have to sign this form as well. In case a project is done outside Utrecht University, an internship contract (see paragraph 2.4) should also be filled in together with the application form.

The research project is divided into 40-hour working weeks. Official public holidays count as free days. The number of days taken as holiday must be added to the agreed research project duration. Only in exceptional cases, research projects can be conducted part-time. The research project cannot be extended unless approved by the Board of Examiners (see paragraph 2.5). Besides the agreements on the contents of the project, the application form includes several practical matters: when will the project start and finish, when do the student and supervisor go on holiday, when does the student take courses, etc. It further contains agreements on the meetings in which the student should participate, such as weekly lab meetings, journal clubs, seminars, etc. The student and the supervisor must conduct evaluation meetings on a regular basis, including an interim assessment meeting 2-3 months after the start of the research project. The meeting dates are laid down in the application form. The supervisor is responsible for conducting and registering the meeting(s). The purpose of the evaluation meeting is described in paragraph 5.1.

Note: The student must hand in the application form at least one month (20 working days) before the starting date of the project. The student cannot start the project until (s)he has received an email from the Research Project Coordinator, confirming the approval of the Board of Examiners (for Biomedical Sciences students) or when (s)he has received an official letter signed by the Board of Examiners, and has given a copy of this to the examiner/supervisor (for the Faculty of Science).

## **2.4. Additional agreements for research project outside UU / UMCU**

### 2.4.1 Internship contract

To safeguard mutual clarity and understanding during research projects at a non-university institute and in some cases for Universities abroad, all students and supervisors are obliged to fill in the internship contract (available on the [study guide of the GSLS](#)). In this contract all responsibilities and agreements on the project and supervision, additional to the ones in the application form, are laid down before the start of the project.

### 2.4.2. Confidentiality

The host organisation may require the student to apply confidentiality during and/or after the research project. However, the examiner (Utrecht supervisor) should be allowed to have access to the reports of the student at all time. The Board of Examiners should be allowed to have access to the students report upon request. In addition, the student should be able to give his/her final presentation at the research group of the examiner. In this case, the student does not have to provide a copy of the report to the Administration Office. One page including the following below is sufficient: Title of the project; student name, number and Master's programme; name, email addresses and affiliations (e.g. function and company or research group / institute) of the examiner and daily supervisor / supervisor host institute; a short summary of the project and a remark regarding confidentiality. The UU examiner should sign the document or confirm via email to the Master's administration that this is indeed a case of confidentiality. Also in case of confidentiality the final report written by the student should be checked via the plagiarism programme Ephorus. When the report is checked 'under embargo' the information in the report will not be stored in the Ephorus database.

## **2.5. Extension**

The elective component (with a maximum of 12 credits) may be used to extend the research project. Extension of a research project or internship with electives is only possible with 6, 9 or 12 credits. The students should apply for this extension on beforehand by indicating this on the application form. Only as an exception this can be done after the project has already started. By extending the minor research project (33 credits), it may be converted into the major research project (51 credits). The student can apply for an extension at a later stage by handing in a letter to the Board of Examiners with a formal request, indicating what will be the content of the extension and signed by examiner, programme coordinator and student.

Any extension of the research project is only allowed after approval by the Board of Examiners. The Board of Examiners will only grant an extension if this truly results in an extra contribution to the research project and if the extension is requested before the start of the extension. An extension will not be granted if the student needs more time to complete the existing research project, for example due to failed experiments or problems during the analysis or writing up phase. In these cases, the research project has overrun and no extra credits will be allocated.

## 2.6. Procedure in the event of problems

Making agreements (see paragraph 2.3 and 2.4) before the start of the project is important to be clear about expectations and responsibilities and prevent problems. If in spite of such a contract a (substantive or personal) dispute arises, the student and supervisor(s) are required to consult each other first, for example during the interim assessment meeting. If this fails to resolve the dispute, the student and/or the supervisor can consult the programme coordinator or academic counsellor. The consultation with the academic counsellor is confidential. With the prior approval of the student and supervisor, the academic counsellor contacts the other party or other experts (for example the programme coordinator or institute director) for further mediation.

If the dispute has failed to be resolved after consulting the programme coordinator or academic counsellor, the student (but not the supervisor) can submit an appeal to the [Board of Examiners](#) or the [complaints coordinator](#) in case of a dispute on personal grounds. The Board of Examiners will assess whether any procedural mistakes were made in handling the dispute. Lastly, the student is entitled to submit a complaint with the university 'Examinations Appeals Board'. This board is solely charged with assessing procedural mistakes.

If the supervisor notices a student is having any (personal) questions or problems, but (s)he does not want to discuss this with the supervisor or other group members, or neither of them can help him/her, please send the student to his/her programme coordinator or academic counsellor for help.

## 2.7. Premature termination of the research project

No credits will be allocated to terminated research projects.

The student is entitled to terminate the research project prematurely. This could be due to a variety of reasons: the research project has failed to meet expectations, or the student is experiencing personal problems that interfere with continuation of the research project. Before deciding to terminate the project prematurely the student is advised to contact the academic counsellor first and discuss the matter with him/her. The academic counsellor will also advise the student on further progress of the study programme. The student must notify his/her supervisor soon as possible on the decision to terminate the research project and inform the programme coordinator as well.

A research project may also be terminated by the supervisor. This may be the consequence if the student's fails to honour the agreements or remain in contact with the supervisor, without giving substantiated reasons. The following guidelines should be used:

- The student has failed to honour the agreements laid down in the application form (and the internship contract if applicable) and has been reprimanded clearly on several occasions by the supervisor.
- The student has been granted at least two opportunities to redeem him/herself by continuing the research project in the agreed manner. The student must have been notified in writing (letter).
- The supervisor has stipulated a clear deadline in the second letter, warning the student that the research project will be terminated in the event of continued non-compliance. The student will be notified in writing if the research project is deemed to have been terminated.
- The supervisor has sent copies of this correspondence to the programme coordinator and academic counsellor.
- The student is entitled to submit an appeal against this decision with the Board of Examiners.

### 3. Assessment criteria for research project

The main purpose of the research project is to teach the student how to perform research independently, taking the complete research cycle into account. To achieve this, the Board of Examiners of the GSLS has defined a number of learning outcomes and assessment criteria for research projects. These describe the specific competencies and skills that students should acquire during the two research projects.

Besides having sufficient knowledge and research skills, students are also expected to acquire specific skills such as analysing, interpreting, presenting and discussing data and working independently. For the assessment both the final level of knowledge and skills acquired by the student as well as the learning process should be taken into account.

#### 3.1. Research projects learning outcomes

After finishing his/her research project the student is capable of:

- translating a Life Sciences problem into a relevant research question, suitable for research development or product design;
- designing a suitable research plan to test the formulated research questions, according to methodological and scientific standards;
- independently performing research, with the required accuracy. Graduates are able to handle, analyse, interpret and evaluate the empirically derived data in a correct manner;
- discussing the outcomes of empirical research and linking them with scientific theories;
- indicating the importance of research activities for solving a biomedical question or problem, if applicable from a social perspective;
- critically reflecting on their own research work in Life Sciences, from a social perspective;
- comprehensibly reporting research results orally and in writing, to specialised and non-specialised audiences in an international context.

In order to assess whether the student has achieved these learning outcomes, the following list of items for research projects can be used.

#### 3.2. Assessment criteria for the research project

In order to assess whether the student has achieved the learning outcomes of the research project, Rubrics for the assessment of [research skills](#), [research report](#) and [oral presentation](#) have been developed. following list of items can be used.

#### 3.3. Interim assessment

For each research project and internship starting from September 1<sup>st</sup> 2014 and onwards an interim assessment is *mandatory*.

During this interim assessment the student should receive feedback from his supervisor(s) on his/her work, progress and performance. In case of a research project at the UU or UMCU the interim assessment meeting is between the student, the examiner and preferably the daily supervisor. In case of a (research) project outside the UU/UMCU, the interim assessment is between the student and the supervisor(s) host institute.

The student has to write a short summary of the interim assessment meeting and the subsequent personal learning goals, a format for this short summary is available [here](#). In case of an research project at the UU or UMCU the report has to be signed by the examiner and hand it in at the administration office. In case of (research) project outside the UU/UMCU, the report has to be signed by the supervisor host institute and send a scan of the signed form to your Master's administration. The student has to inform his/her Utrecht examiner about the outcome of the meeting (e.g. by sending him/her the report as well)..

Without a registered interim assessment the student cannot complete the project/internship. To safeguard the process the GSLS will notify the examiners beforehand and will also monitor the registration of the interim assessments.

### **3.4. Grading the outcomes of the research project**

The assessment of research projects is based on an evaluation of three elements: practical work, the written report, the final presentation. In principle, these elements make up 60%, 30% and 10% of the final mark, respectively. In case of a research project at the UU or UMCU, the practical work will be assessed by the examiner, the marks for the report and the final presentation will be assessed by both the examiner (in close consultation with the daily supervisor) and the second reviewer. If the examiners and second reviewers marks differ by 2 or more points, the examiner should notify the Board of Examiners.

In case of an external research project, the daily supervisor will be the on-site supervisor (staff member). The on-site supervisor grades the practical work under approval of the examiner. Both the supervisor host institute and the examiner assess the report and final oral presentation. When it comes to grading, the examiner and on-site supervisor should contact each other in order to make sure that the assessment of the research report and the final presentation is performed according to the guidelines of the GSLS-UU.

- First, the on-site supervisor determines the grades according to his/her own marking system (e.g. Anglo/Saxon marking (F-A<sup>+</sup>)).
- Next, the on-site supervisors consults the UU/UMCU examiner and after they agree the grade will be converted to a grade according to the Dutch marking system.

The examiner has to complete the assessment within 10 working days after the student has turned in his final report and presentation, by filling in and signing the assessment form. The student can collect this assessment form at STIP (BMS) or the Administration Offices (Beta). It is the student's responsibility to deliver the form to the Master's Administration Office as soon as possible.

The second reviewer is an expert in the field and is not directly involved in the supervision of the student and the project the student has been working on. He/she may be from outside Utrecht University.

### 3.5. Marks

Marks are awarded on a scale of 1 to 10 up to one decimal place. Projects/internships have three components with partial grades. Each of these grades needs to be sufficient (5.5 or higher) in order to pass the project/internship as a whole. According to the examination regulations one chance should be offered for re-examination of each insufficient component. Upon request of the student to make up the insufficient component, the examiner should discuss the deadlines and requirements for the re-examination and put it in writing.

In case of projects abroad please notice that the supervisor at the host institute should grade the achievements in their own grading system. The examiner at the UU/UMCU has to translate this to the Dutch grading system, thereby taking into account the level of quality of the project according to UU/UMCU criteria. The examiner therefore determines the final grade. (S)he can use the grade conversion table below.

NL	Belgium / France	UK		Germany	Australia	US / Canada / New Zealand
8,6 - 10	16 - 20	90 - 100%	A <sup>+</sup>	1.0 (1)	90 - 100%	A <sup>+</sup>
8,0 - 8,5	14 - 16	70 - 89%	A - A <sup>+</sup>	1.3 (1-)	76 - 90%	A - A <sup>+</sup>
7,7 - 7,9	13 - 14	65 - 69%	A <sup>-</sup> - A	1.5 (1-2)	70 - 75%	A
7,4 - 7,6	13	55 - 64%	A <sup>-</sup>	1.7 (2+)	66 - 69%	A
7,0 - 7,3	12 - 13	50 - 54%	B - B <sup>+</sup>	2.0 (2)	63 - 65%	B <sup>+</sup> - A
6,7 - 6,9	11 - 12	45 - 49%	C - B	2.3 - 2.5 (2-)	60 - 62%	B - B <sup>+</sup>
6,4 - 6,6	11	40 - 44%	C	2.5 - 2.7 (3+)	55 - 59%	B
6,0 - 6,3	10 - 11	35 - 39%	D - C	3.0 (3)	50 - 54%	C - B
5,5 - 5,9	10	30 - 34%	E - D	3.3 - 3.5 (3-)		D - C
5,0 - 5,4	8 - 9	25 - 34%	F	3.7 - 4.0 (4)	45 - 49%	F
4,5 - 4,9	7.5		F	4.3 (4-)		F
0,0 - 4,4	1,0 - 7,0	0 - 24%	F	4.5 - 6.0	0 - 44%	F

Grade from	up to	Rounding off
5.50	6.24	6
6.25	6.74	6.5
6.75	7.24	7
7.25	7.74	7.5
7.75	8.24	8
8.25	8.74	8.5
8.75	9.24	9
9.25	9.74	9.5
9.75	10	10

#### Indications for grading:

According to art. 5.4 of the Education and Examination Regulations 2014-2015, marks higher than 5.5 are satisfactory.

Marks 8,0 or higher indicate **very good to excellent** performance. Rationally, this is reached by the upper 10% of the students. Therefore, be cautious and reserved in giving these marks.

## 4. Research project progress

### 4.1. Drawing up a timetable

For a successful conclusion of the research project it is essential to carefully draw up a timetable at the start of the project. The timetable specifies at what time which project components are to be conducted. The student therefore draws up a rough timetable at the end of week 1, which can be turned into a more detailed project plan later. The student is responsible for updating and adjusting the plan where necessary, assisted by the supervisor if necessary.

The timetable is a useful tool to avoid unnecessary delays and overrunning. Whether or not the timetable predicts the process perfectly is irrelevant. If done properly, drawing up the timetable should not be time consuming. The purpose of the timetable is to be able to check whether the targets have been met, and if not, to find the underlying causes (e.g. *Does the student get the essence of the project before getting started with the practical work? Have all issues been addressed? Has the student's interest in the project faded? Does the student put enough effort and time in the project? Is the student too critical to him/herself and the results?*).

If the experimental design failed or a competing research group has already published the data of the student's project it is tempting to extend the practical phase and subsequently overrun the project. However, the only thing that matters is that the student manages to satisfy his/her learning objectives (Chapter 3) even with a deviating timetable. A research project is never finished, even if the student has completed the six or nine months. In consultation with the student, adjust the timetable continuously, so that the student achieves the learning objectives. Prevent unnecessary overrunning, and prioritise the student's needs and interests.

The final presentation and the final written report must be delivered within three months of the end of the defined research project period.

An example of a timetable and accompanying agreements:

*Aims month 1*

*Literature study*

*Formulate research hypothesis*

*Select research method and techniques*

*Make study design*

*Train general techniques (cell culture, dissection, specific analyses)*

*Aims month 2*

*Test research method*

*Validate research method*

*Hand in research plan/project proposal*

*(Possibly) oral presentation on research plan*

*Discuss research plan/project proposal with supervisor*

*Agreements on supervision*

*Agreements on contact hours*

*Agreements on presence during meetings and discussions*

*Aims month 3 and 4 (or 3 to 7 in case of a major research project)*

*Perform experiments – give rough outline of the research lines that should be followed*

*Aims month 5 (or 8)*

*Perform experiments*

*Analyse the results*

*Evaluate the results*

*Further literature study*

*Discuss the results and reflect on the work*

*Informal interim report(s) to research group (possibly oral presentation)*

*Aims month 6 (or 9)*

*Write report*

*Agreements about size*

*Agreements about number of copies and copy costs*

*Agreements about the amount of feedback*

*Agreements on secrecy or confidentiality*

*Oral presentation*



*Agreements about the audience*  
*Agreements about the language (English)*  
*Agreements about a test presentation*  
*Agreements about assessment*

#### **4.2. Drawing up a research plan**

Once the student has started his/her research project, (s)he will have to define the actual research topic of the research project and formulate a research hypothesis. This phase consists mainly of conducting a literature review and drawing up a research plan. It is important that the student draws up this research plan independently and only discusses it afterwards with his/her supervisor. By doing so the student learns to independently think a research plan through. It is important to give clear feedback, to explain why certain parts of the research plan should be adjusted, and to discuss thoroughly whether the research plan is feasible.

The majority of students spends too little time on this phase and are keen to start practical research straight away. It is recommended that the student commits at least one month to this phase to get a clear idea about where to go with the project and to avoid any unforeseen problems. If the research plan is too vague, the student has failed to define his/her objectives correctly. As a result (s)he runs the risk of carrying out the wrong experiments, or trying to carry out too many experiments and overrunning. It is therefore vitally important that the student defines the research problem carefully. The following questions are particularly useful in this respect:

*'Why have you selected this particular topic (in this research field)? Why does this topic interest you? What are the aims and objectives of your research project? How could you demarcate your research area? Which articles do you need to read if your keyword search produces 5.000 hits? Can the problem be researched in the available time? Are your methods, techniques and statistics suitable for this particular research project?'*

The student may be asked to present the research plan to the department. Some students want to write a more extensive project proposal, to get experienced in writing a project proposal (e.g. for grant applications). Student and supervisor may also agree to write a project proposal later during the project, when the student is more experienced. The student is also allowed to write a project proposal in his/her elective component, after approval of the Board of Examiners.

#### **4.3. Gathering and processing data**

Once the student has concluded the research plan, (s)he can start the practical work. This may consist of lab or field-based experiments, theoretical, literature-based research or research using computer models. In case of policy-based, management or educational research projects, the practical work may also consist of conducting interviews, developing teaching methods or policy guidelines. The student needs to keep a lab journal and to save and organise all the gathered data. This makes it easy for the student, but also for the supervisor to see how the project is going. Make sure the student still knows what (s)he is doing and what the obtained results mean and which follow-up experiments would be interesting.

In order for the student to acquire research skills the supervisor or a technician will have to give practical help, monitor the student's progress, and offer advice and encouragement. The amount of time that the supervisor invests in the student should decrease in time, while the student's independence in the lab increases. Students generally absorb more knowledge by doing practical work and learning from their mistakes. They must therefore be given the opportunity to learn from their mistakes. Therefore, it is vitally important that students take the time to reflect on these mistakes.

It is the student's responsibility to ask for help or consult the supervisor. However, it is advisable to stimulate the student to do so, by showing willingness to help and being accessible for any question. Actively keep in touch with the student by keeping an eye on the student and the project. Not only during work discussions, but also casually asking in the lab how things are going will assure the student that the supervisor is there for him/her.

#### **4.4. Writing phase**

The final phase of the research project primarily concerns writing a report and making a presentation. A lot of students experience this phase in particular as problematic. Data need to be

clustered into one manageable entity that tells the story. This requires the student to select, order, interpret and clearly present data, preferably several times during the research project. For students engaged in their first research project, this will probably be the first time they have been asked to do so. They could all too easily lose control of the situation. The following questions are particularly useful in this respect:

*'Which experiments should be added / dropped? Which data will you be using? What are your ultimate aims and objectives? How would you go about ordering and integrating your data to achieve these objectives? In what order will you be writing down the information? How will you relate your findings to existing ideas?'*

To help the student to get the (re)gain an overview of the project, stimulate him/her to draw up a rough outline of the research report. In the outline the different sections should be determined, with a couple of sentences that make the essence of the section clear, the references and the figures that the student is going to use. The purpose of conducting research is to find the answer to a question. If the question posed is not a good one, or not clear to the student, (s)he will only be able to offer a description of his/her activities. The student may find that (s)he is not fully able to assess the quality of the data, if (s)he has insufficient theoretical insight into his/her exact activities. A logical step would be to re-read the literature thoroughly. Discuss the outline with the student and give clear feedback, but also give the student the option to learn while writing and to make decisions based on personal taste.

Stimulate the student to submit the report in different phases, to be able to give feedback regularly, to assess the learning process of the student, and to prevent that the student loses sight. It is advisable to draw up agreements beforehand (during the start-up phase) on what is expected from the student: should it be in scientific article format, which criteria have to be used for a report, how should the student use references, etc. It is further advisable to agree beforehand on the number of drafts and the deadlines for handing them in. During the writing phase there is no pressure on the student to gather data, carry out experiments or visit the lab every day. This is often the phase in which students tend to overrun. Make sure to commit the student to the deadlines, but remember that in the end the responsibility for finishing the report in time lies with the student.

The majority of students encounter problems during the writing of the report. This tends to be the main cause for overrunning. Start-up problems are usually a major factor. The student does not know where to begin and which information to put where. The following questions are particularly useful in this respect:

*'Who is your target audience (general science, scientific journal)? What are the standard criteria for writing up of report? Do you have a rough outline of the table of contents? How to formulate scientific sentences? How to use references? How to edit a text?'*

The report has to be written in English. One of the learning goals of the research project is that students learn how to comprehensively report to people from outside the field. Therefore, the student needs to include a summary for laymen, specifically aimed at informing the general audience. This summary for laymen should meet the following requirements:

- Length: The body of the text should be approximately 500 words long.
- Language: The summary should be written in Dutch\* or English. (\* only if the supervisor is Dutch speaking)
- Level: The text should be understandable for people who finished Biology at a high school level (in Dutch: VWO-level).

The report may be written as a scientific article for submission only if the student will be first author. However, writing a scientific article is a difficult skill to master for the student and this may have consequences for the assessment. Also, in general, the parts of an article (introduction, methods, results, discussion) are as a rule much shorter than those of a project report. It is therefore recommended that the student writes a research report (and have this assessed) and then, if desirable, continues with the writing of a scientific article.

#### **4.5. Presenting the project**

The last part of the research project involves the presentation of the project orally to the research group (in English). In case of a research project abroad, the student will have to give an oral presentation at both the host institute and the research group of the examiner at Utrecht University. The student is advised to finish the report before the final presentation.

It is advisable to let the student practise the presentation beforehand, and to give feedback as supervisor. This way it will become clear if the slideshow is clear (everything works, readable

slides, clear figures) and if the story is clear to the student (is the order of the slides logically, does it lead to a clear story and does the student understand what (s)he tells).

## 5. Supervision of the research project

### 5.1. Supervision and constructive feedback

Supervision is not simply giving a first instruction, keeping an eye on how things are going and giving a final assessment, it is about supervising the learning process of a student. Under your supervision you will prepare the student for a career as independent researcher. It is therefore important to have an idea about the exit qualifications of a Master's graduate and what knowledge, skills and attitudes a student is expected to gain during a research project. The Board of Examiners of the GSLS determined learning objectives and matching assessment criteria, available in Chapter 3.

An important part of supervision to guarantee a successful learning process, is giving constructive feedback. In many evaluations students indicate that they would like more and better feedback during their research projects and especially during the writing of the report. Although they get feedback on their project, during work discussions and other meetings, they feel that feedback on their learning process is insufficient. It is therefore important to discuss the expectations, learning outcomes and the matching assessment criteria, before the start of the project. During the research project, evaluation meetings should take place in which the supervisor and student do not discuss the project, but the learning process of the student, whereby can be referred to the expectations and learning outcomes. The purpose of the evaluation meeting(s) is to give feedback to the student on the progress of the research project and the learning process of the student. These evaluation meetings preferably take place every 2 months and at least once 2 or 3 months after the start of the research project. Make clear to the student what is expected of him/her, what his/her strengths are, and what can be improved. Additionally, this can be a good moment to discuss whether the student has thought about career perspectives. Finally, the student can also share his/her opinion on the research project and supervision. The following questions are particularly useful during the evaluation meetings:

*'How are you coping with the time pressure? Is the topic still sufficiently interesting? Are you receiving sufficient and appropriate feedback? Do you still have a clear idea of why you are conducting these experiments? Is the lab/field teamwork progressing successfully? Are you on target with regard to writing your report?'*

Constructive feedback is not only about what the student is doing well and what (s)he is doing wrong. More importantly it is about why something is right or wrong, and giving advice on how to improve. A supervisor should adjust the way to give feedback to the individual student. Some will appreciate clear, unpleasant feedback, while others might take feedback personal. Using the learning outcomes as a guideline for an evaluation might help to give more constructive feedback. Assure the student that the feedback is not meant personally, and always meant to help him/her in the learning process. Do not only drop an opinion (*'I think this is not good'*), but also give reasons and advice about how to improve things. It is also of vital importance to not only focus on things a student does not do right, but to also mention the good things. An easy trick to make it easier for students to receive feedback is to start with saying what is good and then go further with the aspects that should improve. *'I think your writing is very good, but shortening the sentences might make it easier to read'* sounds better than *'The sentences are too long, it's very hard to read. The writing is good however'*.

### 5.2. Supervision during the practical work

During the practical work, the supervisor is responsible for safeguarding the progress, stimulating the student, offering help and fostering the student's research skills. This requires the supervisor to show active and genuine interest. Not all students are comfortable seeking help when in trouble. In practice, however, the initiative to establish contact is often expected to come from the student. Sometimes students think their problem is not 'important' enough to bother their busy supervisor or they are unable to contact the supervisor. It is therefore of great importance during the start-up phase to lay down clear agreements about contact frequency. During the practical work, it is important to plan a number of consultations and draw up explicit agreements, so that the student has ample opportunity to discuss particular issues of concern. Naturally, students are encouraged to take the initiative to seek contact. Moral support is equally important during this phase. Equipment failure or failed experiments can instil an - irrational - feeling of inadequacy among the students. The role of the supervisor is to give positive encouragement and where necessary offer additional guidance to help the student back on track.

Besides the arranged meetings and evaluation moments, showing daily interest and casually asking 'how things are going', will make the student feel noticed. Also make sure the student feels appreciated for his/her contribution to the (larger) research project.

### **5.3. Supervision on the writing of the report and the presentation**

The concluding phase is primarily aimed at giving advice about presentation skills (written and oral). It is important to realise that students do not yet have the experience required to write reports relating to substantial projects. This skill should be acquired in this phase. The supervisor's dual role as supervisor and assessor is a major factor in this phase. Students may, for example, delay submitting their 'imperfect' work for fear of it affecting their final mark. It is therefore vitally important to lay down agreements during the start-up phase, clearly stating the number of drafts to be submitted, the deadlines and the specific assessment criteria (see Chapter 3). For example, is the draft report assessed, or only the final version?

Encourage the student to divide the report into a number of rounds: begin with a rough outline with titles of main sentences and paragraphs, followed by the results, and final transformation into complete sentences. It is advisable to give feedback in rounds as well: on the rough outlines, on the content and on the details, dotting the i's and crossing the t's.

The last phase of the research project involves presenting the work orally to the research group. The student is advised to finish the report before the final presentation. It is advisable to let the student practise the presentation beforehand and give feedback on this, before the final presentation will take place.

### **5.4. Expectations and assessment**

What can the supervisor reasonably expect from his/her students? The assessment criteria cover both substantive knowledge (contents), academic skills and attitude to work. The flexibility offered by the entrance criteria of the Master's programmes has as a consequence that different students engaged in a particular field of study may have completely different skills and competencies. All students should have an academic, critical attitude, and should be eager to learn and acquire these skills. They should be able to fill gaps in knowledge by reading literature and acquire skills with assistance from their supervisor or a technician. Besides acquiring knowledge and lab skills, formulating a research problem, ordering and integrating data, and testing it critically against the available literature, are also important aspects of the learning process.

In the end the research project is aimed at the learning process of the student: how quickly and to what extent do they acquire the skills that they are expected to master when they graduate. The student's attitude to work is an implicit part of the assessment. Does the student develop in actively being involved in the consultations, taking initiative and working independently? These aspects (and others) determine whether the student will be a suitable research candidate after graduation and will therefore partly determine his/her final mark. When drawing up the assessment, take into account not only the student's 'end product' (the report), but also the student's learning process, the ability to absorb new information and the student's work attitude. Of course students doing their second research project might be expected to start on a higher level, compared to students in their first research project.

### **5.5. Final assessment**

The assessment is performed by the examiner from Utrecht University, in close consultation with a second, independent reviewer and, if applicable, the daily supervisor. The second reviewer is a staff member who is not involved with the student's project directly, and is required to assess the report and presentation. If the daily supervisor was a PhD-student or a post-doc (a non-staff member), (s)he cannot act as second reviewer (but will be consulted by the examiner on the performance of the student).

In case of an external research project, the daily supervisor will be the on-site supervisor (staff member) at the host institute and the examiner will be a staff member of Utrecht University or UMC Utrecht. The on-site supervisor grades the research skills, the written report and the final presentation. The Utrecht examiner grades the written report and the final presentation and he/she is responsible for the final mark.

The weighting of the research skills, written report and oral presentation is 60%, 30% and 10% of the final grade respectively. Please note that all three elements have to be awarded at least a 5,5

in order for the student to pass the final examination on the project. Some supervisors systematically identify and weight assessment criteria for the different components, which they consider particularly important to arrive at a final mark. Others may weigh up these factors more instinctively. Chapter 3 contains link to three different Rubrics, which should be used as a guideline for the assessment. Students are entitled to know on which criteria their assessment is based. It is useful to use these criteria during the supervisory phase, to give feedback. This information will enable the student to improve those areas that need improving. Furthermore, a written motivation for the final mark from the examiner should be provided to the student and handed in at the Master's administration office by the student.

If a student performs poorly, do not wait until the final assessment to indicate this to the student. Mention your concerns as soon as possible, e.g. during an evaluation meeting, and try to improve the situation in consultation with the student. If the problem persists and in very rare cases, the ultimate consequence is to terminate the research project prematurely (under strict guidelines, see paragraph 2.7) rather than to give a unsatisfactory final mark.

After completing the report, the student has to hand in a (digital or hard) copy of the report to the examiner, the daily supervisor (if applicable) and the second reviewer. The examiner and second reviewer have to complete the assessment within 10 working days after the student has handed in his/her (final) report, by filling in and signing the assessment form. In addition the examiner has to provide a written motivation for the grade (e.g. using [Rubrics](#)).

It is the student's responsibility to deliver the assessment form, the Ephorus result, the motivation for the grade and a PDF of the report to the Administration Office as soon as possible.

## 5.6. Ephorus

### Ephorus as a tool to check for plagiarism

The examiner should ensure that no plagiarism took place. The final report should therefore be checked for plagiarism via the Ephorus plagiarism checker. Since no plagiarism checker covers 100% of all existing text sources, it is important that you also critically review the report and references yourself. Ephorus indicates to what extend plagiarism is committed, and which source is used. A print of the summary report of Ephorus should be delivered by the examiner and handed in by the student at the Master's administration together with the assessment form.

### Ephorus account and login

When you already have a Ephorus account you can log in via [this link](#). If you do not have an Ephorus account the following procedures apply:

For UMCU examiners: please send an email to the UMCU Ephorus contactperson [Pieter Jan van der Schoot](#). You will receive an email from Ephorus shortly afterwards to activate your account. When you activate your account you can create your own password, your UMCU email address will be you login name.

For UU examiners: If you do not have an Ephorus account, please contact the [Ephorus manager from your faculty](#). Note: All examiners of the faculty of Science have an Ephorus account.

### Check for plagiarism with Ephorus

If you would like to check a document for plagiarism, there are two possible ways

#### 1. The student uploads the document

The final report from the student can be uploaded in Ephorus by the student via this link:

<http://student.ephorus.nl> **Note:** Ephorus will ask the student to fill out an 'inlever code', which is just the email address that is related to your account, hence your UMCU email address. After the student has uploaded his files the results of the plagiarism check will become visible in your Ephorus account and (depending on your settings) you will receive an email with the results of this check. Ephorus gives the result by means of a percentage. If this percentage is >10%, you need to explain this in writing. This written motivation should be handed in (together with the assessment form and a the summary of the plagiarism check) by the student at the Master's administration office.

#### 2. The supervisor uploads the document

The final report from the student can also be uploaded in Ephorus by the examiner. Log in via [this link](#). Click on the button 'Upload'. Select the file you wish to check and select the folder in which you would like to store the results of the plagiarism check. Please click on the uploaded file to see

the percentage of plagiarism. If this percentage is >10%, you need to explain this in writing. This written motivation should be handed in (together with the assessment form and a the summary of the plagiarism check) by the student at the Master's administration office.

Note: Students should only upload the final version, as it will be stored immediately in the database. Uploading a similar text the second time will give a high percentage of overlap. The student may only submit the assessment form of the research project if the result from Ephorus is attached to the assessment form.

In case of secrecy the final report written by the student should be checked 'under embargo' the information in the report will not be stored in the Ephorus database.

**Read more**

More information on Ephorus, including a manual and contact persons, can be found on the [UU pages about plagiarism](#).

## 6. More information and contact

### *Useful websites*

[Study Guide of the Graduate School of Life Sciences](#)

[Information for teachers and supervisors of the Graduate School of Life Sciences](#)

### *Literature*

Below is a selection of books dedicated to the topics of supervising a research project, effective interview techniques, avoiding and solving bottlenecks during the write-up phase, assessment of reports, and coaching students (all in Dutch):

H. Oost, [Een onderzoek begeleiden](#). HB Uitgevers 2004, ISBN 9055744328

M. van de Berg, [Effectieve tweegesprekken](#). Sdu Uitgevers 2006, ISBN 9052615683 Schoonhoven, Academic Services.

M. J. A. Mirande en E. Wardenaar, [Scriptieproblemen](#). Noordhoff Uitgevers b.v. 1997, ISBN 9001589332

T. Geerlings, (1993), [Beoordelen van scripties](#). In: Beoordelen in het Onderwijs, Eds. Berkel van H.J.M en Bax, A.E., Pp. 93-101. Bohn Stafleu van Loghum, Houten.

B. Thoolen en K. Scager (2003), [De docent als coach](#). In: Basis vaardigheden voor coachende docent, pp. 7-15. Universiteit Utrecht, Utrecht

### *Training*

Information in this guide has been partly derived from a course 'Effectively supervising students' previously given by the COLUU institute (Centre for Teaching and Learning). COLUU offers several courses a year on different subjects, like 'Supervising a research project', 'Teaching for PhD students' and 'Coaching students' (in Dutch only). Have a look at their website ([www.uu.nl/nl/co](http://www.uu.nl/nl/co)) to see which trainings are offered.

## **Contact**

### *Board of Examiners*

Chair: M.L. Zonderland, PhD

Vice-Chair: J.A. Post, PhD

Secretaries:

Biomedical Sciences (UMC Utrecht): Els van der Vlist, PhD

([boardofexaminersGSLs@umcutrecht.nl](mailto:boardofexaminersGSLs@umcutrecht.nl))

Visit address: Hijmans van den Bergh building, room 4.04c, Universiteitsweg 98

Postal address: HB 4.05, PO Box 85500, 3508 GA Utrecht

Science Faculty: Sascha van der Veen, LLM ([boardofexaminersGSLs@uu.nl](mailto:boardofexaminersGSLs@uu.nl)) Address: Buys ballot lab. room 7.06; Princetonplein 5, Utrecht

All other contact information is given in the [study guide of the Graduate School of Life Sciences](#)