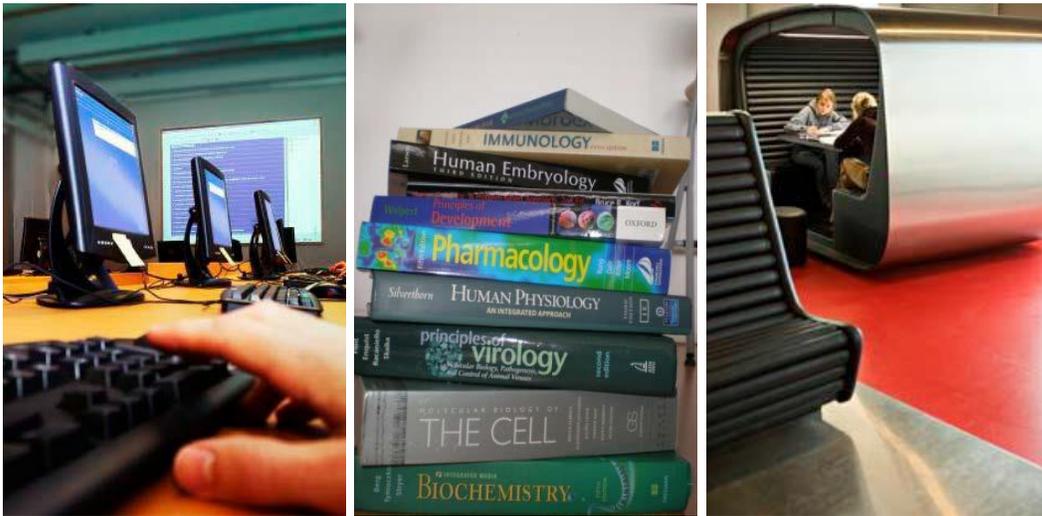


GSLs Writing Assignment Guide for students



Graduate School of Life Sciences

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Preface

This guide is intended for students of the Graduate School of Life Sciences performing a Writing Assignment as mandatory part of their Master's programme. A corresponding guide has been drawn up for examiners and supervisors. The purpose of this guide is to provide a helping hand and refer to other sources for additional information or support.

Chapter 1. Quick Guide gives you an overview of the most important information you need to know to successfully conducting a Writing Assignment.

Chapters 2 and 3 provide more extensive information for those that are interested.

Additionally, the [student's site](#) is a useful website created to provide support to students. There you can find a wealth of information on all the topics mentioned in this guide as well as all forms, documents and links you may need. The research projects of the GSLS Master's programmes are governed by a number of rules and guidelines recorded in the GSLS Education and Examination Regulations (EER), and the Rules and Regulations of the Board of Examiners. The latest versions are available on the [student's site](#).

GSLS principles on scientific integrity

During your Master's degree and in particular by working on your writing assignment, you are part of the world of scientific research. Thus, a code of conduct applies, based on principles of proper scientific behavior. The GSLS follows the principles of [scientific integrity](#), as described in the [European Code of Conduct for Research Integrity](#) (Pieter J.D. Drenth, 2010) and [The Netherlands Code of Conduct for Research Integrity](#) (2018). Both Codes set out the principles that should be observed by each individual concerned, which are the following basic norms: honesty, reliability, objectivity, impartiality and independence, as well as open communication, duty of care, fairness and responsibility for future science generations.

Plagiarism, falsification and fabrication are the top three actions of scientific misconduct. More information about what precisely these actions entail can be found in the [Education and Examination Regulations \(EER\)](#).

Chapter 1. Quick Guide

The Graduate School of Life Sciences maintains a high standard of education. With many GSLS writing assignments being supervised both inside and outside the UU and UMC Utrecht, the uniform assessment of these assignments is a major challenge. Although the majority of the writing assignments 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 guidelines for supervision and assessment of the writing assignments performed by GSLS students.

1.1 Learning outcomes of the writing assignment

After finishing your Writing Assignment, you are capable of independently:

- Conducting literature research, using scientific secure literature databases (e.g., PubMed).
- Using scientific literature and insights in a critical manner.
- Summarizing literature using your own words.
- Integrating results and models of papers read into new models.
- Formulating hypothesis for future research.

1.2 Start of the writing assignment

You can only start your writing assignment after you and your examiner/supervisor have received an email confirming the approval by the Board of Examiners. The application should be submitted by creating a 'New Case' in the Osiris Case platform via [OSIRIS Student](#).

1.3 Supervision terminology and responsibilities

Definitions

Examiner:

- is affiliated to UU/UMCU, Princess Maxima Centre, or the Hubrecht Institute as a full, associate (UHD) or assistant (UD) professor with a tenured (track) 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.
- cannot be a postdoc or PhD candidate.

Supervisor host institute (only applicable for projects outside UU/UMCU):

- works at the host institute (outside UU/UMCU, Princess Maxima Centre, or the Hubrecht Institute) where the project is carried out.
- is an expert in the field (cannot be a PhD candidate)
- must be sufficiently capable of supervising a MSc student.

Daily supervisor:

- can be the same as examiner or supervisor host institute. If this is not the case: the daily supervisor can be a PhD candidate or postdoc. If the daily supervisor is still rather junior (e.g., PhD candidate), a senior scientist (e.g., their own supervisor) must provide support.
- works at the institute where the writing assignment is carried out.
- must be sufficiently capable of supervising a MSc student.

Second reviewer (only applicable for projects at UU/UMCU*):

- is an expert in the field (cannot be a PhD candidate) and is not directly involved in the supervision of the writing assignment that the student has been working on. Ideally, the second reviewer is a staff member from a different group than the examiner and daily supervisor.
- can be from outside UU/UMCU, Princess Maxima Centre, or the Hubrecht Institute.

*For projects outside UU/UMCU both examiner and supervisor host institute grade the research project, therefore a second reviewer is not required.

Responsibilities

The examiner:

- is familiar with the research field of the writing assignment
- ensures the academic master level of the proposed assignment
- supervises at a distance if the assignment is preformed outside the UU/UMCU
- discusses grading process and academic level of the writing assignment with supervisor host institute (for projects outside UU/UMCU) or daily supervisor (for projects at UU/UMCU) before the start of the assignment
- discusses rubric/assessment criteria with student and supervisor of the host institute or daily supervisor at the start of the assignment
- discusses the achievement of the student during the final assessment together with the supervisor of the host institute or daily supervisor, preferably using the rubric
- determines the final grade
- supports grades with feedback (preferably using rubrics)
- can only assess maximum two of the following components for the same student: major research project, profile project, writing assignment, and business internship

The supervisor host institute:

- is responsible for the daily supervision
- monitors the achievements and progress of the student
- provides grades
- discusses progress/performance with the student during the final assessment, if possible together with the examiner, using rubric/assessment criteria

The daily supervisor:

- guides the student throughout the assignment
- communicates with student and examiner (for assignments at UU/UMCU) or supervisor host institute (for assignments outside UU/UMCU)
- advises on grades to examiner or supervisor host institute

The second reviewer (only applicable for projects at UU/UMCU*):

- provides grades

*For projects outside UU/UMCU both examiner and supervisor host institute grade the assignment, therefore a second reviewer is not required.

The student:

- is responsible for choosing a topic and finding a suitable research group and examiner/supervisor
- must apply for approval from the Board of Examiners before starting the Writing Assignment in [Osiris Student](#)
- must adhere to the rules of scientific integrity.
- must finish the writing assignment on the agreed end date or takes the appropriate action in case of delay

- must stay in contact with the examiner and if applicable daily or host supervisor
- is responsible for seeking help when problems (either professional or personal) arise
- is responsible for informing the supervisor/examiner about the GSLS guidelines

1.4 Duration of the Writing Assignment and extension

- Five weeks (7.5 EC) are scheduled for the Writing Assignment. You cannot extend the Writing Assignment with additional credits.
- The Writing Assignment should be completed preferably within these five weeks, from the start date to submission of the assignment.
- To meet the deadline, the scope of the assignment should be limited and clearly defined, you should work diligently, and the agreements between you and your supervisor about the content and scope of the assignment should be clear.
- You are allowed to work on your writing assignment part-time in parallel with other components of your Master's degree; in that case, the duration of your writing assignment can be extended up to 3 months.

1.5 Phases and outcome of the Writing Assignment

- A Writing Assignment consists of several key stages: defining the topic, formulating a hypothesis, drawing up a timetable, literature research and the writing phase.
- There are two formats:
 - Literature Review - a review paper in the relevant research field
 - Research proposal - an NWO Open Competition Domain Science – KLEIN-1 grant application
- The Writing Assignment should have an in-depth discussion, in which students demonstrate their ability to critically evaluate hypotheses and results, presents their own views, and draws conclusions that point towards new research opportunities.
- The body of the text (excluding legends, tables, footnotes, references, etc.) should be 6000– 8000 words long. It should be emphasized that the content is more important than the number of words. The assignment should include minimally 25 and maximally 60 references.
- The assignment should be written in English and contain a summary specifically aimed at informing the general audience about the content (plain language summary – in Dutch or English, 500 words, high school Biology or science level). The assignment is allowed to be written in Dutch, if the writing assignment is conducted at a company or organization that requires a Dutch report. In this case, an English summary is required.
- References: up-to-date reviews, based on recent literature (maximally 5 years old, of which two are maximally 3 years old) are more useful to students and their supervisors than reviews based on older literature. A review based on recent literature has the added benefit of containing fewer references.

1.6 Interim assessment

An interim assessment is not mandatory, but it is important to evaluate the work and progress on a regular basis. The [Writing Assignment rubrics](#) can be used as a tool to discuss the expectations, the strengths and points of improvement of the draft and first version.

1.7 Fraud and plagiarism

Fraud or plagiarism is absolutely not allowed and will be dealt with as described in the [Education-and Examination Regulations](#). Sanctions vary from the invalidation of a paper and a record in OSIRIS to the permanent termination of programme registration. You cannot graduate with Cum Laude and/or honours if you have been found guilty of plagiarism or other scientific misconduct.

1.8 Grading

At the end of the Writing Assignment, you as a student will be expected to have met the [learning outcomes](#). In order to assess whether you have achieved these learning outcomes, the [Writing Assignment Rubrics](#) can be used.

For writing assignments inside UU/UMCU, the assessment is performed by the examiner in close consultation with the daily supervisor (if applicable) and the second reviewer. For writing assignments outside of the UU/UMCU, the UU/UMCU examiner and supervisor host institute should contact each other in order to make sure that the assessment of all components is performed according to the guidelines of the GSLS.

- First, the supervisor host institute determines the grades according to their grading system (e.g., Anglo-American letter grading (F-A⁺)).
- Next, the supervisor host institute consults the UU/UMCU examiner. The examiner supports the conversion of the grade to the Dutch marking system. A conversion table is available [here](#).

If the examiner's and host supervisor's/second reviewer's marks differ by 2 or more points, the Board of Examiners should be notified by the examiner.

In order to meet the [cum laude requirements](#), you should receive an 8.5 or higher for your Writing Assignment.

1.9 Final assessment & submission of the assignment

- Your writing assignment is registered in [Osiris Case](#); you will be asked to submit the final report digitally in Osiris Case after your examiner has submitted the final assessment in the system.
- The assessment procedure is the following:
 - For writing assignments [inside UU/UMCU](#), the examiner performs the assessment in close consultation with the daily supervisor and second reviewer.
 - For writing assignments [outside UU/UMCU](#), the examiner contacts the supervisor host institute to be informed about their grading and to make sure that the assessment of all components is performed according to the guidelines of the GSLS. The examiner is responsible for submitting the grades from both them and the supervisor host institute. The supervisor host institute will digitally sign the entered grades.
- You will be requested to upload the report in Osiris Case after the examiner has submitted the assessment. After uploading the report, the Master's Administration Office will be notified to finalize the results.

1.10 Copyrights and publication

You will always be writing your assignment under experienced supervision, and your assignment will often be part of a larger framework/project. By signing the application form, you declare to transfer the copyright of all products (including the tangible and intellectual products) of the assignment to the UU/UMCU or host institute. Depending on the magnitude of the scientific contribution, you have the right to be a (co-)author of publications or to be otherwise acknowledged. Any questions in this regard should be addressed to the head of the research group.

1.11 Problems or questions and further information

In case of any problems or questions, feel free to contact the [programme coordinator](#) first, or otherwise the [academic counsellor](#) or [research project coordinator](#). You can also refer to the [Students' Site](#) page about [guidance and counselling](#).

All official regulations of the GSLS are recorded in the Education and Examination Regulations, the Rules and Regulations and all other relevant documents and forms, can be found [here](#).

Chapter 2. The Writing Assignment from A to Z

The main purpose of the Writing Assignment is for you to learn how to independently perform literature research and write a scientific essay or proposal in a limited timeframe. After completing your Writing Assignment, you are expected to have acquired sufficient knowledge and skills to critically analyse and interpret scientific literature, as well as present your own views and formulate a research hypothesis for future research. Both the final level of knowledge and skills acquired by the student and the learning process should be considered during the final assessment.

2.1 Approval of the Writing Assignment application

- 1) When you contact your examiner with the request to work on your Writing Assignment under their supervision, make an appointment to discuss:
 - the possibilities within the group.
 - topic and the size and scope of the assignment: your own interests, their guidance, combined ideas, etc. Start defining a research question or scientific problem.
 - who the daily supervisor will be.
 - what the supervision entails, what you need, what they can provide.
 - how often you will be in contact, setting milestones, preliminary deadlines.
 - confidentiality if applicable
- 2) You must use the information from this meeting to start a new case in [OSIRIS student](#) for your writing assignment and complete the application form. In subsequent meetings, you can elaborate on this information more thoroughly.
- 3) You need to submit the application in Osiris Case at least 20 working days (4 weeks) before the starting date of the Writing Assignment.
- 4) The quality and suitability of the topic will then be assessed by the Board of Examiners. You cannot start the Writing Assignment before receiving the email containing their approval.

2.2 Drawing up a timetable

Having a clear timetable from the beginning of the writing assignment helps you to conclude your project successfully and avoid delay. It is advisable to start the writing assignment by drawing up a timetable that contains the different phases of writing:

- Specify when the different parts of the process need to be finished and set targets
- Make appointments with your examiner to discuss the progress of your work and determine when the writing plan, the first draft and final version need to be handed in and when you will receive feedback.

The purpose of the timetable is to keep you on track. It also provides a warning signal when the target is not met, which is an opportunity to define problems and issues early. Regular check-in moments help with this. Discuss the following with your examiner during these meetings:

Check if you really understand the topic well enough before you start writing; dive into literature to understand the field (check [tips, theory and training for searching and using scholarly information](#))

- Can you give an elevator pitch on the topic of the Writing Assignment?
- Start with an outline and discuss with your supervisor before elaborating further.
- Have all issues been addressed?
- Be aware if your interest in the subject fades at some point and discuss how you can tackle this.
- Do you put enough time and effort in the Writing Assignment?
- Be aware of being too critical of yourself or the contents of the Writing Assignment

2.3 The Writing Assignment product

The specific format of the assignment should be discussed before the you actually start writing.

- The assignment should be written in English. Unless you fall under the exceptions allowing a Dutch report as listed in the [Rules and Regulations](#).
- The body of the text (excluding legends, tables, footnotes, references, etc.) should be 6000–8000 words long, but keep in mind that the content is more important than the number of words.
- The literature section should include between 25 and 60 references.
- The assignment needs to include a summary of the content written for the general public. (Plain Language summary – in Dutch or English, 500 words, high school Biology or science level).
- The assignment should have an in-depth discussion, in which you demonstrate the ability to critically evaluate hypotheses and results, present personal views, and draw conclusions that point towards new research opportunities. This often requires that you read additional literature.

2.4 Confidentiality and accessibility of the Writing Assignment.

External organisations may request confidentiality from the student, both during and after the Writing Assignment. It is however mandatory that the UU/UMCU examiner has access to the student's Writing Assignment at all times. If confidentiality applies, students will be able to set confidentiality settings upon submission to the thesis archive at the end of the process. The mandatory plagiarism check can be done without storing the report in the database, choosing the option 'under embargo' by the examiner.

It is important that the report is available to the Board of Examiners upon request, due to rules regarding accreditation.

2.5 Publishing

It is not uncommon for a students' Writing Assignments to form the basis for a scientific article. Writing a scientific article is a difficult skill to master. Make sure you finish your Writing Assignment and have this assessed, before you start writing a possible review article which will then be used for publication. You can decide to work on it outside of your writing assignment (e.g., as a mini project in electives) so it does not cause you study delay.

Please note that the product you will hand in to the school should be an individual product. That means it cannot be edited for publication by your examiners or other co-authors. Of course, you can receive feedback. If your examiner decides to publish the report as a review, the examiner may rewrite it after you handed in your individual report.

Chapter 3. Issues and problems

3.1 Identifying issues

There may be times when supervisors and students disagree about the progress or contents of the Writing Assignment, or when the student fails to meet the supervisor's expectations. You may be experiencing personal problems, which can cause a delay in the writing process. It is important to identify and communicate issues in time and look for solutions to prevent further problems and delays.

Although you are expected to indicate when you need help, your supervisor should also actively keep in touch with you to identify and discuss any issues that may arise. Keep the following questions in mind: Do you feel there is enough time? Do you think it is going well? Does your supervisor think it is progressing well? Is the feedback received understandable and are you able to learn from it?

3.2 Possible problems

Below you will find a list of frequently occurring problems, accompanied by some useful questions for identifying them for yourself and communicating with your supervisor.

- Bottlenecks in the 'problem formulation' phase

If the scope of the Writing Assignment is too broad, or not clearly defined, you might have no clear reference point and run the risk of getting stuck in the information gathering phase. Because of this, it is important that you define the Writing Assignment subject carefully and precisely.

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 Writing Assignment? How can you demarcate your issue of interest? Which articles do you need to read if your keyword search produces 5.000 hits? Can the topic of interest be researched in the available time?

- Problems in literature assessment

The information from scientific literature needs to be presented in one manageable figure, graph or table. In order to make this figure, graph or table, you are required to select, order and interpret scientific information.

The following questions are particularly useful in this respect: Which papers will you use? What are your aims and objectives? How would you go about ordering and integrating the information to achieve these objectives? In what order will you be writing down the information?

- Problems during the writing of the assignment

You may encounter problems during the writing phase. The following questions are particularly useful in this respect: Who is your target audience (general science, scientific journal)? What are the standard criteria for the writing of an assignment? Do you have a rough outline of the table of contents, and have you discussed it with your supervisor? Do you know how to formulate scientific sentences, how to use references and how to edit a text?

- Attitudinal problems

In certain occasions, you may have a different perception of the Writing Assignment than your supervisor, or you might not know what is expected of you. Also, you may be experiencing problems of a personal nature, causing a (serious) delay in the writing process. The following questions could be useful in this respect: How are you coping with the time pressure? Is the topic still sufficiently interesting? Are you receiving sufficient and appropriate feedback? Are you on track with the set deadlines?

Many of these problems can be prevented by making clear agreements before the start of the Writing Assignment. If you have personal questions or problems, but do not want to discuss this with your examiner or other group members, you are advised to refer to the [programme coordinator](#) or [academic counsellor](#). If a dispute arises despite these agreements, the student and supervisor(s) are expected to discuss the issues with each other first. If this fails to resolve the dispute, the student and/or the supervisor can consult the programme coordinator, research project coordinator or academic counsellor. Any conversation 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 (e.g., the programme coordinator or institute director) for further mediation.

If consulting the programme coordinator or academic counsellor does not resolve the issue, the student discusses with the academic counsellor about the next step. This might be:

- Contacting one of the [complaints coordinators](#), in case of a dispute on personal grounds.
- Or as a last resort contact the [Examinations Appeals Board](#) (College voor het Beroep van de Examens, CBE) in the case student disagrees with the decision of the Board of Examiners or an examiner.

3.3 Premature termination of the Writing Assignment

You can also choose not to finish the Writing Assignment. This can be due to a variety of reasons, such as the assignment has failed to meet your expectations, or you are experiencing personal problems that make it impossible to continue. Before deciding to terminate the Writing Assignment, you should contact your programme coordinator and/or the academic counsellor, discuss the problems and look for a solution. The academic counsellor will advise you on further progress of the study programme. Students must notify their supervisor, programme coordinator and the Master's administration office as soon as possible of the decision to stop the Writing Assignment.

A Writing Assignment can also be terminated by the supervisor. Reasons could be because the student fails to honour the agreements or doesn't stay in contact. The following guidelines should be used:

- The student has failed to honour the agreements as agreed upon and written down in the application form, and has been reprimanded clearly on several occasions by the supervisor.
- The student has been granted at least two opportunities to make up for past behaviours/attitudes by continuing the Writing Assignment in the agreed upon manner. The student must have been notified in writing.
- The supervisor has mentioned a clear deadline in the second letter, warning the student that the Writing Assignment will end unless the student's behaviour is improved and lives up to the previously made agreements. The student will be notified in writing if the assignment is terminated.
- The supervisor has sent copies of this correspondence to the programme coordinator and study counsellor.
- The student is entitled to appeal this decision with the Board of Examiners. No credits will be given to prematurely terminated Writing Assignments.

Additional sources and contact information

A large part of the information you need, such as contact information of [Administration Officers, International Officers](#) or the [Board of Examiners](#), is available on:

- The [Students' Site of the Graduate School of Life Sciences](#)
- The [Teacher's Guide of the Graduate School of Life Sciences](#)

Links to contact information

[Board of Examiners](#)

[Assessment Support Panel](#)

[Programme coordinators](#)

[Research project coordinators](#)

All other GSLS contact information can be found in the [Students' Site](#)