These instructions are an updated version of the original instructions, approved by the Faculty Council of the Faculty of Biological and Environmental Sciences at its meeting on 15 June 2015. These instructions have been updated by the Committee for the degree programmes on the 21st of March 2019.

GENERAL INSTRUCTIONS FOR MASTER’S THESES (40 CR) AT THE FACULTY OF BIOLOGICAL AND ENVIRONMENTAL SCIENCES
INSTRUCTIONS FOR THESIS WRITERS, SUPERVISORS, COORDINATOR APPOINTED BY THE DEGREE PROGRAMME/PROFESSORS IN CHARGE OF A MAJOR SUBJECT AND EXAMINERS

General information about the Master’s thesis

Advanced studies in the major subject of the Master’s degree include a written Master’s thesis consisting of an empirical section and its critical examination using literature related to the research topic. The thesis may also be based solely on theoretical literature or other scientific source material. The Master’s thesis must show the student’s familiarity with scientific thought as well as his or her command of the necessary research methods, knowledge of the thesis topic and ability to communicate scientifically. The total scope of the thesis is 40 credits.

The thesis work can be completed independently or, alternatively, by participating in group work or a wider research project, provided that the student’s independent input can be verified and assessed. Students must write the thesis independently, and, as a rule, in their native language.

All students writing a Master’s thesis must be assigned a supervisor. Further provisions relating to the choice of thesis topic and the appointment of the thesis supervisor may be given in the departmental curriculum. The Master’s thesis written by prospective subject teachers of biology may focus on issues related to the teaching of biology.

The Master’s thesis process

The authoring and approval of the Master’s thesis proceeds according to the following main stages:

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<th>Stage</th>
<th>Description</th>
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<td>1</td>
<td>The student plans the thesis topic and agrees on thesis supervision and the place of completion. The supervisor helps the student choose a topic.</td>
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<td>2</td>
<td>The student draws up a Master’s thesis plan, which the coordinator appointed by the degree programme (or professor in charge of the major subject) approves.</td>
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<td>3</td>
<td>The student compiles the thesis material under the supervisor’s guidance and agrees on the methods suitable for analysing the material. The supervisor instructs the student on compiling the material and choosing suitable methods.</td>
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<td>4</td>
<td>The student writes text for the thesis and regularly requests comments from the supervisor. The supervisor provides feedback, offers guidance on scientific writing and corrects factual errors if required.</td>
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<td>5</td>
<td>The student finishes the thesis and agrees with the supervisor about when to submit the completed work for assessment. The student contacts the coordinator appointed by the degree programme (the professor in charge of the major subject) to inform him/her about depositing the Thesis to E-thesis for starting the assessment process.</td>
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<td>6</td>
<td>The coordinator appointed by the degree programme (the professor in charge of the student’s major subject) appoints two examiners for the thesis. The examiners draw up a statement in E-thesis, including a proposal for the grade.</td>
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The student will be informed about the proposed grade about one week before the Faculty Council meeting, where decision on the approval of the Master’s thesis and its grade will be made. The student may request a feedback discussion with the professor in charge of the major subject, the supervisor, or both.

The Master’s thesis will be submitted to the Faculty Council for approval.

The Faculty Council approves and grades the thesis. The Student Services registers the grade and title of the thesis in the Student Register.

The Master’s thesis plan

Before starting the Master’s thesis project and submitting the Master’s thesis plan for approval, a student accepted to pursue first- and second-cycle studies in the Faculty must successfully complete the Bachelor’s thesis and the related maturity test.

Before starting the Master’s thesis project, the student must write a separate Master’s thesis plan. The coordinator appointed by the degree programme (the professor in charge of the major subject) approves the plan. Students need an approved Master’s thesis plan to demonstrate that they have begun work on their thesis, which will ultimately grant them 40 credits. An approved plan is required, among other things, for insurance coverage.

A form for the Master’s thesis plan is available in Instructions for Students: https://guide.student.helsinki.fi/en/article/studies-faculty-biological-and-environmental-sciences. This plan must state the title and primary research question of the thesis and cover the following, as applicable:

1. Thesis supervisor(s) and unit □ Supervisor’s name and position
   • Unit: faculty or research institute, research group
2. Background and objectives
   • Theoretical framework, general background and objectives
3. Material and methods
   • Research topic
   • Methods (including statistical methods), arrangements for experiments, equipment and their suitability for the purpose.
   • Mastery of the necessary methods, learning needs
   • Ethical considerations (a licence to conduct animal testing, etc.)
4. Timetable
5. Further plans, if any

If the student plans to collect material for the thesis by participating in a group project or in an extensive research project, the plan must indicate the student’s own contribution to the project. Even if the Master’s thesis is part of a larger research project, the student must ensure when devising the plan that it will be possible to write the thesis within the required scope as described in these instructions.

The student must obtain the signatures of the supervisor and the coordinator appointed by the degree programme (the professor in charge of the major subject) for the Master’s thesis plan. Before the supervisor can sign the plan, he or she must have read the instructions for Master’s theses written in the Faculty. The coordinator appointed by the degree programme (the professor in charge of the major subject) cannot sign the plan until the supervisor has (or the supervisors have) signed it. By signing the plan, the coordinator appointed by the degree programme approves the thesis topic and ensures that the research equipment needed for the work is at the student’s disposal. In addition, the coordinator appointed by the degree programme (professor) approves the supervisor and decides that he or she is academically qualified to supervise the thesis in question. The primary supervisor must hold at least a doctoral degree or equivalent qualifications. The coordinator appointed by the degree programme (the professor in charge of the major subject) may also be appointed as supervisor. It is highly recommended that at least one of the supervisors is a teacher in the faculty offering the student’s major subject to ensure adequate familiarity with matters related to the subject, such as the instruction of research methods.
Students whose mother tongue is Finnish or Swedish may write their Master’s thesis in another language, usually English, if required for special reasons related to, for example, the thesis supervisor or the student’s own language proficiency. The student must indicate the language of the thesis in the Master’s thesis plan. When approving the plan, the coordinator appointed by the degree programme (or the professor in charge of the student’s major subject) also approves the language of the thesis. Students in the Faculty’s English-language Master’s degree programmes must write their Master’s theses in English.

A period of validity will be defined for the Master’s thesis plan. If the student fails to submit his or her thesis for examination before the end of the period, the plan must be submitted for reapproval to the supervisors and the coordinator appointed by the degree programme. The period of validity must be determined in such a way that it leaves the student enough time to compile the material, carry out the required analyses and write the actual thesis text. The obligation to serve as a supervisor ends if the period of validity indicated in the Master’s thesis plan has expired and the student has not submitted the plan for reapproval.

The student must write a new plan if the thesis topic or supervisor changes. If, however, the change concerns only the title of the thesis and not the actual topic, the student need not write a new plan.

The Master’s thesis is an academic paper primarily intended to familiarise the student with research work within a reasonable timeframe (see the section entitled “Duties and obligations of the supervisor and the student”). For this reason, a thesis with results that prove inadequate for reasons unrelated to the writer can nevertheless be approved if the empirical section is completed as planned, adequate use has been made of the material and the scientific approach used in the reporting is acceptable.

The Master’s thesis plan will be made in three exemplars, one for each part signing the plan. The coordinator appointed by the degree programme is responsible for storing the thesis plan in the Faculty. According to the Act on the Openness of Government Activities (Act No 621/1999, section 24), the thesis plan shall be secret until the thesis has been approved, unless access to it will clearly not impede completion of the thesis, study or development project, its exploitation and appropriate assessment, or inconvenience the person carrying out the research, or the person commissioning the research or development project. Thesis plans may, however be discussed in a seminar context.

As specified in the University of Helsinki archiving plan, approved Master’s theses are to be preserved permanently. The Master’s thesis are preserved electronically through E-thesis in HELDA (Helsinki University open-access digital archive). Degree programmes and major subjects may issue their own instructions on how to write Master’s thesis plans and Master’s theses, as well as on the layout of theses. The student will be informed about these instructions in the Master’s seminars.

Duties and obligations of the supervisor and the student

The supervisor is expected to participate in the writing of the Master’s thesis plan. He or she must allocate time for the supervision of the practical aspects of the work and the methodological analyses, as well as for monitoring the progress of the work. The supervisor and the student must agree on a clearly defined project encompassing approximately six months of work, including time allocated for the gathering of material (e.g., three months), the processing of the material (statistical and other applicable methods) as well as the writing of the thesis. The work requires studying the relevant literature and contrasting the research material with previously published research. The student has the right to stop collecting research material if the time limit set has elapsed and the material accumulated is adequate for the writing of the thesis. The supervisor and his or her unit or research group must provide the student with the necessary material, tools and equipment.

The supervisor must read the various versions of the Master’s thesis manuscript, provide feedback, offer advice on academic writing and correct factual errors. The duties of the supervisor do not, however, include carrying out analyses or determinations on behalf of the student if these analyses and determinations are at a level of competence expected of thesis writers. The supervisor should not rewrite the thesis or parts of it.

Once the student has chosen the topic and has had the coordinator appointed by the degree programme (or the professor in charge of the major subject) approve it, the student is committed to working with the
supervisor and completing the work within the agreed timeframe. The student should draw up a
detailed timetable with the supervisor and adhere to it.

Responsibility for the progress of the work rests primarily with the student, who is expected to stay in
regular contact with the supervisor. If for any reason the supervisor is unable to carry out his or her
supervisory duties for a length of time deemed unreasonable for the task of supervising the thesis, a new
supervisor may be appointed as a replacement.

The supervisor and the student must agree on whether to publish the results of the research.

The Master’s thesis abstract

A separate abstract must be attached to the Master’s thesis. The abstract is written in the same language
as the thesis. The Faculty recommends you to write the abstract also in English. Students whose native
language is Finnish or Swedish and who write the thesis in English or another language must also write an
abstract in their native language, and translate the title of the thesis into their native language. The abstract
must include keywords describing the content of the thesis.

The abstract must be written on a form used University-wide, which is available at Instructions for Students:

When writing the abstract, the author must assume that the readers have a general understanding of the
topic. However, the abstract must be understandable to readers when read independently from the thesis.
The abstract must also be written in full sentences, not as a list of subheadings. References and quotations
should not be included in the abstract, nor should it contain information or claims not included in the thesis
itself.

The abstract should cover the following areas:
- Purpose and objectives of the research
- Research methods used
- Main results
- Conclusions based on the results and the need for future research, if any.

The student must be sure to clearly and correctly indicate the name of the Faculty, and major
subject/degree programme in which the Master’s thesis is to be approved.

Public access to the Master’s thesis and its abstract

Master’s theses, as well as other theses and dissertations, must be available for open assessment. The
actual thesis to be assessed must include no information intended to remain confidential under the Act on
the Openness of Government Activities (621/1999) (e.g., business or professional secrets). Such
information must be included only in the background material of the thesis. The examiners of the thesis are
bound by confidentiality if they choose to access this information. Assessment of the thesis, however, is
based on its public content. Master’s theses, as well as other theses and dissertations, are made available
to the public immediately after they have been approved. In addition, the thesis abstract is always a public
document.

Maturity test

The requirements for the degree of Master of Science include a written maturity test intended to
demonstrate the student’s familiarity with the topic and content of the Master’s thesis.

Students who have completed their basic and secondary education in Finnish or Swedish must
demonstrate their command of Finnish or Swedish. As a rule, they also take the maturity test in that
language. The excellent language proficiency required for some civil service positions can be demonstrated
by completing the maturity test in the same language as the one in which the student completed his or her
basic and secondary education.
If the student has previously completed a first-cycle degree and passed the maturity test in the same language, the maturity test for the Master’s degree will be evaluated solely based on the field and content of the thesis. In this case, students who have completed their basic and secondary education in Finnish or Swedish may agree with the coordinator appointed by the programme (professor in charge of their major subject) on the language (Finnish, Swedish or English) in which they take the maturity test for the Master’s degree.

Please note that it is possible to write the maturity test in a language other than the language in which the Master’s thesis was written. The language of the Master’s thesis does not contribute to the demonstration of excellent language skills.

**Students who have completed their basic and secondary education in a language other than Finnish or Swedish** must agree on the language of the maturity test (Finnish, Swedish or English) with the coordinator appointed by the programme (professor in charge of their major subject). The maturity test of students who have completed their basic and secondary education in a language other than Finnish or Swedish will be evaluated solely based on the field and content of the thesis.

The student must take the maturity test for example in Examinarium or another written examination occasion. He or she must first register for the test as stipulated in the curriculum. The Master’s thesis cannot be approved until the student has passed the maturity test.

A pass/fail grading system is used for assessing the maturity test. Further provisions relating to the examiner(s) of the maturity test may be given in the curriculum for the programme. The Student Services register the maturity test as a separate entry in the Oodi register.

**Examination of the Master’s thesis**


When submitting the thesis, the student must possess a valid right to pursue a Master’s degree in the degree programme of his or her major subject (in the degree programme in environmental sciences, the student must possess the right to pursue a degree in his or her major subject). In addition, students must be registered as attending students at the University for the term during which the thesis is to be approved and graded. A student with the right to pursue both a first- and second-cycle degree at the Faculty of Biological and Environmental Sciences must first complete the Bachelor’s thesis and pass the maturity test before his or her Master’s thesis can be approved and graded.

The coordinator appointed by the degree programme (the professor in charge of the student’s major subject) will appoint two examiners for the thesis. The minimum requirement for these examiners is a doctoral degree or equivalent qualification. The supervisor of the thesis may serve as an examiner only for special reasons at the discretion of the coordinator appointed by the degree programme or the vice dean of education.

In addition, the disqualification of examiners is governed by sections 27 and 28 of the Administrative Procedure Act (434/2003). To ensure a uniform application of the grading scale and other grading principles, it is recommended that at least one of the examiners be from the faculty offering the student’s major subject.


The examiners may submit a joint statement or separate statements (in E-thesis). The statement may be written in Finnish, Swedish or English. If the native language of the writer of the Master’s thesis is other than Finnish or Swedish, the examiners must write their statements in English. When writing their statement, the examiners should ensure that the contents of the statement correspond with the proposed grade. The examiners should also bear in mind that students cannot be expected to have mastered, for example, research methods not included in the degree. It is recommended that the examiners submit their
statements within a month of receiving the assignment. The coordinator appointed by the degree programme (the professor in charge of the major subject) will accept the examiners statement in E-thesis.

The examiners’ statements will be made public after the Master’s thesis has been approved and graded. The thesis supervisors can then receive an electronic version of the statements.

After receiving the examiners’ statements, the coordinator appointed by the degree programme (professor in charge of the major subject) proposes to the Faculty council the approval and assessment of the Master’s thesis.

Students will automatically be informed about the proposed grade by e-mail through the E-thesis –system about one week before the Faculty council meeting, where decision on approval and grade for the Master’s thesis will be made.

**Using the Urkund system to check Master’s theses**

**All Master’s theses submitted for grading will automatically be checked with the Urkund plagiarism recognition system.**

When the student has submitted his or her thesis to E-thesis the thesis will automatically be evaluated in Urkund (a plagiarism recognition system). The coordinating teacher appointed by the programme receives an email notification once the evaluation has been completed. This email includes a link to the Urkund evaluation report and information from the evaluation about the percentage of equivalence between the student’s document and the reference databases as well as a mention of the longest consecutive quotation. The evaluation report also offers more detailed information on the originality of the text. The student will receive the same information automatically through E-thesis.

The coordinating teacher appointed by the programme (professor in charge of the student’s major subject) must review the evaluation report and discuss any suspicious elements with the student.

After the Master’s thesis has been graded, the Urkund report on it becomes public. If the student requests that the grading of his or her Master’s thesis has to be postponed, the report’s publication will be postponed. If cheating is suspected and the case is investigated according to the University’s internal procedure, the ungraded thesis and the report on it will be made public once a decision has been reached.


The University’s Educational Technology Centre provides support for Urkund use and the system’s operations. The support email address is opetusteknologia@helsinki.fi.


**Grading of the Master’s thesis and descriptions of the grades**

Students are entitled to receive feedback on their Master’s theses. After receiving information of the proposed grade, the student may request a feedback consultation with the coordinating teacher appointed by the programme, the supervisor, or both.

When examining Master’s theses, the following aspects are generally considered:

- **Introduction**: How does the writer present the topic, and has the literature relevant to the topic been quoted correctly and adequately? Are the research problems presented clearly and in a scientific manner?
- **Appropriateness of the methods and materials for the topic**: Have the methods been used competently and consistently?
• Results: How has the research material been used? How are the results presented and processed statistically?
• Discussion of the results: Is there consistency? How are the results linked to the framework of the research and the literature consulted? Are the conclusions based on the observations and results of the research? Are the conclusions valid (as far as materials and theories are concerned) and convincing? Have the possible sources of errors, including errors deriving from the methods and materials, been taken into account?
• Abstract: Conciseness and clarity. Does the abstract convey an adequate picture of the central objectives, methods, results and conclusions of the research?
• The thesis as a whole: The relationship between the scope of the thesis and the time used to produce it. Has the thesis fulfilled the scope of the 40 credits earned (in other words, six to seven months of fulltime work)? Is the language of the thesis acceptable? How has the writer dealt with the research problem? Is the research original? Does the thesis contain essential shortcomings or errors that the writer has overlooked? Does the thesis demonstrate the writer’s maturity and capability of critical scientific thinking?

The grading scale used in the assessment of Master’s theses is as follows: laudatur, eximia cum laude approbatur, magna cum laude approbatur, cum laude approbatur, non sine laude approbatur, lubenter approbatur, approbatur, improbatur (failed).

The grading criteria are described in an evaluation matrix.

Processing of the Master’s thesis by the Faculty council

The coordinating teacher appointed by the degree programme (professor in charge of the student’s major subject) proposes a grade on the basis of the examiners’ statements. The proposal and examiners’ statements will be enclosed with the agenda of the meeting. The thesis cannot be submitted to the Faculty council for approval until the student has passed the maturity test.

The Faculty council will decide on the approval of the Master’s thesis and its grade. After the Faculty council’s meeting, the Student Services registers approved Master’s theses in the Student Register.

According to § 56 of the Regulations on Degrees and the Protection of Students’ Rights at the University of Helsinki, students dissatisfied with the grading of their thesis may appeal in writing to the Academic Appeals Board within 14 days of receiving the grading decision, excluding the day of notification (https://guide.student.helsinki.fi/en/article/legal-protection-students).

Discontinuing the grading of a Master’s thesis

All undergraduate students at the Faculty must draw up a written Master’s thesis plan at the beginning of the thesis project as part of the work and supervision process of the thesis. Before signing the plan, the supervisor or supervisors of the thesis must read the Faculty’s general instructions for Master’s theses. The supervisor must take into consideration that a thesis is an academic paper which constitutes a part of the student’s University studies, and that the time for writing the thesis is limited. The coordinating teacher appointed by the programme approves the topic and supervisors for the thesis when he or she approves the thesis plan. The student must write a new plan if the thesis topic or supervisor changes.

Students launch the examination process when they submit a completed Master’s thesis for assessment through E-thesis. Students should consult the supervisor to determine when the thesis is ready for examination. They also have the right to receive sufficient feedback from their supervisor at the finishing stage of the thesis. Students should remember that the assessment is based primarily on the thesis as it is when submitted for examination.

The supervisor of the thesis may serve as an examiner only for special reasons at the discretion of the coordinating teacher appointed by the programme or vice dean of education. The examiners should bear in mind that the examination assesses the student’s thesis as an academic paper of 40 credits in scope, and as a part of the Master’s degree. The examiners must draft their statements so that they consider all the
main points of the thesis (introduction, appropriateness of methods and material, results, discussion of results, abstract, overall impression) and include sufficient justification for the proposed grade.

The student may request that the grading of the Master’s thesis to be discontinued before the Faculty council meeting. This request must be made in writing (e.g., via email) to the presenting official for the Faculty council (Head of Academic Affairs) or to the Student Services in Viikki at least one day before the Faculty meeting.

The Faculty recommends that students provide a reason for the request to discontinue the grading process.

If the student requests that the grading process has to be discontinued, the Master’s thesis cannot be approved or graded. The student should bear in mind that interruption of the grading process will prolong the time needed to approve and assess the Master’s thesis.

In requesting to discontinue the grading process, the student essentially accepts the issues that the examiners raised in their statements. It is worth noting that the assessment of the thesis does not necessarily lead to a higher grade if the only corrections made to the thesis consist of amendments to details raised by the examiners.

The examiners are under no obligation to provide further information regarding the issues raised in the written statements or to offer the student guidance or advice on amending the thesis.

The student may relaunch the examination process by submitting the amended Master’s thesis to E-thesis for assessment. If the amended thesis differs so substantially from the previously submitted thesis that it can be considered a separate thesis on the same topic, the assessment will be based on the amended thesis instead of the original one. For this to be the case, the thesis must be significantly rewritten (text revision), or the student must have supplemented or replaced empirical material in the thesis to such a degree that the conclusions drawn in the thesis change or the material supporting them becomes significantly stronger (revision of the scientific content). If the only corrections made to the thesis consist of amendments to details raised by the examiners, the assessment will be based on the original thesis. The coordinating teacher appointed by the degree programme must determine the extent of the amendments made to the thesis.

Once the student has resubmitted the Master’s thesis for examination after the grading process has been discontinued, the coordinating teacher appointed by degree programme may appoint the same examiners for the thesis, provided the examiners do not refuse the task or that some other reason requires that one or more examiner be replaced.

The validity of these general instructions

This is an updated version of the general instructions concerning Master’s theses (40 credits) which were approved by the Faculty council on 15 June 2015. These instructions will be valid until 31 July 2020 when the transition period for students studying in accordance with old degree requirements will end. From 1 August 2020 all students will be automatically transferred to the new degree programmes for which general instructions concerning Master’s theses (30 cr) has been approved by the Faculty council at 27 February 2018.