

VILNIUS UNIVERSITY  
LIFE SCIENCES CENTRE

PROCEDURE FOR THE PREPARATION, DEFENCE, AND STORAGE OF FINAL THESES

**GUIDELINES FOR ENVIRONMENTAL SCIENCE, BIOPHYSICS, BIOLOGY,  
BIOTECHNOLOGY, MICROBIOLOGY, AND MOLECULAR BIOLOGY STUDY  
PROGRAMMES**

Vilnius, 2022

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## GENERAL PROVISIONS

Procedural guidelines for the preparation, defence and storage of the final thesis of Environmental science, Biophysics, Biology, Biotechnology, Microbiology, and Molecular biology study programmes define the general principles for the preparation, defence and storage of final theses of the first and second cycle students at Vilnius University Life Sciences Centre (hereinafter – LSC).

The procedural guidelines apply to the students of the following study programmes: Environmental science (Environmental science and protection, Environmental science and management study programmes), Biophysics (Neurobiophysics, Biophysics study programmes), Biology (Biology, Biodiversity, Neurobiology study programmes), Biotechnology (Bachelor and Master level study programmes of Molecular biotechnology), Microbiology (Bachelor and Master level study programmes of Microbiology) and Molecular biology (Bachelor and Master level study programmes of Molecular biology). The recommended procedure and methodological requirements are prepared based on “Regulations for the Preparation, Defence and Storage of Written Academic Papers of Vilnius University Students”, approved by Resolution No. S-2017-12-11 of the VU Senate, and “Description of the Procedure for the Administration of Students’ Written Academic Papers in the Study Information System of Vilnius University”, approved by Order No R-512 of the VU Vice-Rector for Studies.

Studies of all degree programmes at LSC are completed by preparing and defending the final thesis.

Concepts used in the guidelines:

**The final thesis** – a research paper, independently developed by a student, compliant with the requirements for university studies, witnessing the student’s ability to apply the knowledge acquired during the studies, to find the necessary scientific literature and use it (present, analyse, interpret, etc.), to apply the research methods, to independently cope with the assigned tasks, to provide one’s conclusions (mandatory) and recommendations (preferred), and to accurately describe the research in the correct language. The recommended length for the final Bachelor thesis is 30–40 pages without supplements (81000–108000 characters with spaces), for the final Master thesis – 40–60 pages without supplements (108000–162000 characters with spaces).

**Methodological requirements for the final thesis** (hereinafter – Methodological requirements) – requirements approved by the committees of LSC Environmental Science, Biophysics, Biology, Biotechnology, Microbiology and Molecular biology study programmes.

**Embargo Period** – a period (in months) after the defence of the final thesis during which public access to the electronic version of the paper is restricted. Embargo lasts up to 60 months. The decision regarding the embargo duration is made by the supervisor.

**EPAS** (also known as ESAS) – is an electronic plagiarism detection tool, used to determine whether the work is free of plagiarism.

**Warranty** – a signed document by which a student guarantees that the final thesis is written in good faith and independently.

**Final Thesis Defence Committee** (hereinafter – Committee) – the final thesis defence committee formed on the proposal of the head of the unit implementing the study programme, and approved by the University Rector or the authorized Pro-Rector. The committee comprises five competent specialists in a relevant study field: researchers and lecturers, skilled practitioners, professionals, social partner representatives or other representatives of science and study institutions whose education or the activity of the represented institution is related to the study field of the defended research papers. The Committee is headed by a chairperson who must be a representative of another educational institution.

**Plagiarism** – improper assignment of credit, i.e. presenting someone else's work or a part of it as your own by incorporating it into one's work without full/proper acknowledgement (e.g. not following citation requirements, providing misleading reference).

## **PREPARATION OF THE FINAL THESIS**

The final thesis is an analytical essay that provides a substantive analysis of the topic, including an object/subject of the research, the aim and objectives, methods, valid results, conclusions, literature and references, all by using a scientific method of research. The final thesis has to be prepared in accordance with the principles of The Code of Academic Ethics of Vilnius University that apply to all members of the University's academic community. Correct and appropriate Lithuanian or English language should be used in the final thesis. The latter can be used if the main language of the student, the supervisor or a consultant is not Lithuanian or the study programme is conducted in English.

The author of the thesis takes full responsibility for the content and quality of the work. The thesis shall not be defended if it does not meet the methodological requirements of the study programme and is prepared not single-handedly and dishonestly.

The student and supervisor shall ensure, that: 1) experiments with animals adhere to regulations of animal research; 2) experiments with human subjects adhere to regulations of research with humans; 3) research of organism species shall have required permissions from Environmental Protection Agency; 4) field research in protected territories shall be coordinated with the local administration or the responsible personnel, the student shall have all required permissions (their copies) and a personal identification at all times during the fieldwork.

Topic for the final thesis and the supervisors shall be proposed publicly. Students shall also have the right to propose their own topic which must be coordinated with the supervisor of the Research

Paper and corresponds to the study programme. Lecturers, researchers and PhD students of Vilnius University can be assigned as supervisors. A student has one supervisor. In addition, one or more consultants can be assigned. Students (in year four of Bachelor's and year two of Master's) shall choose and register the thesis topic at the Committee of the study programme no later than/by the 1<sup>st</sup> of December (autumn semester).

The supervisor consults the student on various methodological and topic-related questions. The supervisor and the student decides upon the way and periodicity of communication. Any essential choices related to the thesis should be approved by the supervisor. A draft of the paper should be provided for the supervisor's approval not later than a month before the prospective defence date. The final paper should be approved and signed by the supervisor no later than seven working days before the defence date.

The LSC director or the deputy director confirms the topics of the final thesis (name of the student and the supervisor are appointed).

## **THESIS SUBMISSION FOR EVALUATION AND DEFENCE**

### **Academic paper upload using VU information system (VUSIS)**

Students shall upload the prepared thesis, its metadata and the warranty for storage using Vilnius University information system (VUSIS). It shall be completed by the due date provided by the committee of the study programme. The thesis that is not uploaded shall not be defended or evaluated.

Once the academic paper is uploaded, the unit administrator of the study programme shall confirm that the paper meets the requirements (i.e. correct format, summary and alike, correct metadata). This shall be done within a given timeframe, but not later than five working days before the prospective defence date.

Content of the electronic document (in PDF) stored on VUSIS shall be edited only with the supervisor's approval. Before the changes are made, the student shall submit a formal request to the chairperson of the committee providing motives. The request shall be signed by the supervisor (if he/she agrees with the change). The student shall submit the request no later than five working days before the defence. The student shall refer the request which is signed by the chairperson of the committee to the study administrator to implement the requested changes.

### **Registration of the academic paper**

Properly structured, written and printed academic paper along with the warranty shall be provided for evaluation and the defence following the terms (i.e. not later than five working days before the prospective defence date) and requirements set by the committee of the study programme. The submitted academic paper shall be registered immediately by the unit administrator.

Specimens of plants, mushrooms and animals collected for the research purpose, shall be handed over to VU Zoology museum or Herbarium for storage. In exceptional cases, the specimens can be passed on to other educational institutions provided the head of the unit grants the permission. Research materials (i.e. samples, protocols, research data, measurement data, laboratory journals etc.) shall be handed over to the laboratory where the research took place.

### **Permission to defend the thesis**

Bachelor's and Master's theses may only be defended by the students who have completed the whole study programme. The thesis can be defended provided the supervisor confirms that the thesis is properly prepared, is grammatically correct, and meets the other Methodological requirements. Before deciding on whether to allow the thesis to be defended, the supervisor must become acquainted with the EPAS report for the paper and all the computer verification information for the independence of the paper. The decision regarding the authenticity of the work is made by the supervisor.

In case of plagiarism, the thesis shall not be defended, evaluated or made public. The student is sanctioned following the study regulations of Vilnius University.

Not later than five working days before the prospective defence date student shall be informed of the decision regarding the defence, i.e. permission granted or denied. The supervisor shall declare the decision to give permission for defence in the Warranty and approves it with a signature.

If the supervisor denies permission for the defence (an academic paper is improperly prepared or prepared without the supervisor's participation), the student shall have the right to request permission from the Committee. Formal request and the academic paper shall be provided for the Committee no later than one day after the denied permission from the supervisor. The committee takes into consideration the student's motives and grants/denies the permission to defend the thesis.

The LSC director or the deputy director authorizes the defence of the final thesis if it meets the requirements:

1. The student has fulfilled the whole study programme;
2. The final thesis is submitted using VUSIS;
3. The final thesis is registered;
4. The supervisor has granted the permission to defend the thesis.

### **Thesis review**

Personnel of LSC institutes, other VU departments, institutions, and representatives of social partners shall have the right to review the thesis.

The Chairperson of the study programme Committee, based on the procedure provided by the study programme Committee, shall assign a reviewer not later than five working days before the defence.

The unit administrator shall assign a reviewer on VUSIS not later than 24 hours before the Final Thesis defence.

The review of the final thesis (in writing or signed and scanned) along with a suggested grade shall be provided to the student and the unit administrator (ensures the review is provided to the Defence Committee) not later than 24 hours before the defence. The review shall contain a testimonial and an assessment of whether the final thesis meets the procedural and methodological requirements.

A recommended review form is available in the Methodological requirements. The review shall be provided to the administrator of the study programme and the student not later than one day before the defence. The reviewer shall assess the thesis using the recommended form.

## **DEFENCE AND EVALUATION OF THE FINAL THESIS**

### **The procedure of the final thesis defence**

The defence of the final thesis is a public event (with an exception of a closed defence) taking place at the end of the spring semester during the final assessment period (the beginning of June). Graduate students of the Molecular biology study programme defend their final theses in January. The exact date for the thesis presentation and defence is announced on the LSC website, in the section „Studies, final thesis“.

The final thesis shall be defended in a closed meeting upon a request by the supervisor, chairperson of the study programme. A closed defence of a final thesis may also be organised at the request of an institution where the thesis was prepared, in case the thesis contains sensitive (secret) data. The results of the closed defence are not made public. Permission for the closed defence shall be implemented upon the order of the Director or Deputy Director of LSC provided it has been coordinated with the Director or Deputy Director of LSC and the Committee chairperson. Besides the Committee members and the student, a supervisor and a reviewer have the right to participate in the closed defence. All participants have to sign a nondisclosure agreement. A request for a closed defence shall be presented to the LSC Studies division no later than one month before the defence.

A day before the defence, the Studies Administrator provides the final theses along with the reviews and printed electronic verification reports (provided that is requested by the Committee) to the Committee.

Committee members shall discuss the general agenda of the defence, the procedures for the assessment, and the presentation/defence order before the meeting. The Chairperson of the Committee starts the meeting with an introduction of Committee members, regulations, the order and the procedure of defence.

### **The procedure of the final thesis defence**

1. The Chairperson of the Committee shall introduce the topic of the final thesis, the supervisor and the reviewer to the Committee members and the audience, and shall give the floor to the student.
2. The author of the thesis shall briefly present the thesis. Recommended time for the presentation for Bachelor thesis is up to 10 min., Master thesis – up to 12 min. The research aim, methods and results shall be presented. The format of the presentation shall correspond to the requirements for presentations at scientific conferences and seminars.
3. Everyone who takes part in the defence shall be permitted to ask questions on the research topic. The students shall answer the questions. On average 20 min is recommended for the question and answer session.
4. The reviewer, the Chairperson of the Committee or a designated person (in case the reviewer is not present) shall read the review.
5. The student shall be given time to respond to the reviewer's comments.
6. The Supervisor shall give feedback on the student's research skills, abilities and input into the final thesis.
7. Concluding remarks of the student.

### **Presentation of the final thesis**

The author of the thesis shall present the conducted study: names the research problem, the aim and objectives of the study, shortly describes an object/subject, the results, comments on the methods and their reliability, draws conclusions, provides recommendations and answers questions from the Committee members and the audience. The student shall prepare a presentation of the work (*MS PowerPoint* is recommended). All presentations should be uploaded to the computer before the start of the defence meeting. It is strongly recommended to check if the presentation opens and the slide design is suitable for optimal visibility of text, images and tables. The presentation shall have 10-15 slides (only content of the thesis: text, tables, images). For example, slide no. (1) title, names of the author and the supervisor, (2) relevance of the study; (3) the aim, objectives and object/subject of the study; (4–5) the theoretical framework; (6) methods; (7) substantiation of the sample size; (8–10) results and the analysis; (11–12) conclusions and recommendations. Quality of slide content is very important, i.e. only essential text, the proper size of the font (not too small/big), minimal number of images/tables per one etc. It is strongly recommended to give a talk and engage with the audience during the presentation rather than reading the slides. Short comments on tables and images should be given to better reveal the essence of the study. Committee Chairperson shall have the right to stop the presentation after giving a time warning in case the time limit of the presentation is exceeded.

The topic of the final thesis that has already been confirmed shall not be questioned during the defence.

### **Evaluation of the final thesis**

The Committee members shall assess the following when evaluating the thesis: speech, presentation quality, student's answer to the questions from the reviewer, committee members and the audience, reviewer's suggested grade, language and grammar of the paper, and other requirements for the final paper.

The Committee shall make a collegial decision regarding the assessment of the final thesis. Averaged grades of all Committee members make a final evaluation which should be approved by the majority of the Committee. In case the supervisor and/or the reviewer of the Thesis are members of the Committee, they are not given permission to vote when the Committee makes a decision on the final grade. Provided the members are equally divided in opinion as to the grade for the Final Thesis, it shall be finally determined by the assessment proposed by the chairperson of the Committee. Provided the members of the Committee are equally divided in opinion as to the grade for the Final Thesis, and the Chairperson is a supervisor of the final thesis, therefore, cannot vote, the final grade shall be determined by the assessment proposed by the deputy chairperson of the Committee elected by a vote between members of the Committee.

The decision of the Committee on the grade for the final thesis shall not be open to appeal. For any procedural violations during the defence of the final thesis that could have affected the grade of the paper, the student shall have the right to apply to LSC's dispute settlement commission no later than the next day after the defence. An appeal shall be filed according to the procedures established in the regulations of the dispute settlement commission of the core academic unit of Vilnius University. The appeal shall name a specific violation in the Final Thesis defence procedure and indicate the circumstances that confirm the fact of the violation.

Upon successful defence of the final thesis, a special sheet shall be filled out according to the requirements, by specifying the grade of the thesis, the status of access to its storage in the eLABa system, and the applied Embargo period (if applicable). The unit administrator uploads the sheet to VUSIS. The sheet shall be signed by all the members of the Committee. Based on the sheet, a defence protocol of the final thesis shall be prepared in VUSIS by which the student is awarded Bachelor's/Master's degree.

Students who do not defend on time or fail to defend the thesis shall be expelled from the university for academic failure. The student shall be allowed to defend the thesis a second time only

after resuming the studies, i.e. next academic year. In case the final thesis fails to be defended the second time, a new academic paper should be written and presented as the final thesis.

## **STORAGE OF ACADEMIC PAPERS**

The final thesis shall be returned to the Committee of the study programme following the defence. A paper version of the thesis shall be stored at the unit implementing the study programme. Electronic documents uploaded from VUSIS onto eLABa shall be stored according to the procedures and terms defined in eLABa regulations.

Access status of the final thesis on eLABa is determined by the Committee according to the supervisor's recommendations. All defended final theses must be published on eLABa, with exceptions when the supervisor decides not to publish a final thesis on eLABa. A decision not to publish the final thesis on eLABa can be made, if:

- The final thesis contains confidential information;
- The rights of the author(s), eLABa manager(s) or other copyright holder would be violated after publishing the final thesis and (or) uploading it onto the system;
- The rights of personal data subjects to the inviolability of private life would be violated after publishing the final thesis and (or) uploading it onto the system.

In case there are no reasons not to publish the final thesis on eLABa and the student requests to set an Embargo period, the Committee shall decide, if the embargo is reasonable, and sets the duration.

Content of an uploaded electronic document shall be changed in exceptional cases and only with the supervisor's permission, but not later than the final grade of the thesis is announced. Electronic documents shall be exported from VUSIS to eLABa within 14 (fourteen) calendar days after the defence, with exceptions when the decision has been made not to publish the paper on eLABa. In that case, only the metadata of the thesis shall be available on eLABa.