# Life Sciences

# **Milestones of your thesis**

For all doctoral students enrolled in the PhD in Life Sciences

A publication of the Doctoral School FBM

Reception opening hours: every day from 9.30 am to noon @POL-324, UNIL-Sorge

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## 1. Introduction

## Welcome! This booklet is intended for all PhD students enrolled in the PhD in Life Sciences.

The present document summarizes the necessary steps to complete a PhD in Life Sciences at the University of Lausanne in accordance with the 2022 Rules. We recommend that you download this document from our website, so that you can use the clickable links: <a href="http://www.unil.ch/ecoledoctoralefbm/rulesandforms">http://www.unil.ch/ecoledoctoralefbm/rulesandforms</a>

**Concerning the study program in life sciences:** In addition to the classical requirements of the thesis work, each doctoral student must follow doctoral level courses for 12 ECTS credits (see points 4 and 6 for specific information). This learning activity is structured in the form of a study programme. Detailed information can be found on the following web page: <u>https://www.unil.ch/ecoledoctoralefbm/programs</u>

Respecting deadlines is especially important for PhD students who have a contract that allows them to work on their thesis on a full-time basis. For PhD student who have a part-time employment in parallel to their doctoral studies can ask for deadline extensions, in accordance with their thesis director - please contact the Doctoral school (phdthesis@unil.ch).

## 2. Following registration

Each PhD student has a **thesis committee** that follows her/his progress during the thesis period. The committee's composition must be communicated to the Doctoral School **as soon as possible after the start of the PhD**, and at the latest one semester following your registration, and selected by common consent between the thesis director and the PhD student.

## The committee includes:

- 1. The thesis director (and co-directors, if applicable).
- 2. Two experts, with at least one employed outside of UNIL/CHUV/Unisanté. The experts should not collaborate significantly to the thesis project to a level which could likely influence their assessment/decision. Experts should hold a doctorate degree.
- 3. The president (nominated by the Doctoral School).

# 3. During the 2<sup>nd</sup> semester

A short report summarizing the thesis subject, the thesis milestones/plan & the research progress must be prepared **by the end of the second semester for a first evaluation by the thesis committee.** In order to be validated by the Doctoral School, the report must be sent by e-mail to ALL the members of the thesis committee, including the President, with in copy (Cc) the thesis director and the Doctoral School (<u>phdthesis@unil.ch</u>).

# 4. <u>At the end of the 1<sup>st</sup> year</u>

- Compile and complete the ECTS documents related to your doctoral program. A minimum of 4 ECTS (including 2 tutorials accredited by the Doctoral School) have to be obtained by the end of the 1<sup>st</sup> year of your thesis and before you organise your mid-thesis exam according to the requirements of the program you are enrolled in (program free study option or with a study option).
  - Forward all the documents by postal mail or by e-mail, in PDF with all the relevant documents merged in the appropriate order to the Doctoral School FBM if you are enrolled in the <u>free study option program</u>.
  - If you are enrolled in a program with a study option, forward them to the appropriate Program Coordinator.

## 5. Mid-thesis exam

The mid-thesis evaluation must be held at the latest two years following the start of the PhD Assistant contract or 3 semesters after the official enrolment date. During this exam, the student presents the progress of her/his research project in front of the thesis committee. The PhD student, together with the thesis director(s) and committee members (including the president), choose an examination date. At least one month prior to the mid-thesis exam, you should forward the following information to the Doctoral School:

- The mid-term report presenting the results and research progress (recommended length: 20 pages, double-spaced, 30 references). This document should be validated by the thesis director and then sent by email to ALL the members of the thesis committee with a copy (Cc) to the thesis director and the Doctoral School (phdthesis@unil.ch).
- An e-mail to phdthesis@unil.ch mentioning the date, hour and place of the exam. Please book a room on the campus, at CHUV or at Unisanté

For more details (exam duration, format of the report...), check our <u>"Directives pour le Doctorat ès sciences de la vie 2022"</u>, section "Evaluation intermédiaire".

# 6. End of the program

You need to fulfil the following program requirements: minimum 12 ECTS, according to the specific conditions of the *free study program option* or *with a study option*. Please forward the documents for validation of courses at any time during your thesis, but *at the latest* 4 weeks before depositing the thesis manuscript to the Doctoral School's Office (=manuscript for the oral private exam) – see point 7 C.

Please forward the ECTS documents (minimum 12 ECTS) to the FBM Doctoral School (for the program free study option) or **your coordinator** (for any program with a study option), possibly by postal mail or by e-mail, in PDF with all the relevant documents merged in the appropriate order. More information can be found on our guidelines (program free study option): <u>here</u>.

Should you have any queries on the requirements of the program in which you are enrolled, contact <u>program.ls@unil.ch</u> (program free study option) or your <u>program coordinator</u> (program with a study option).

## 7. Are you ready to defend your thesis?

In brief, you will have to write your thesis and then defend it at the "private defence" session in front of your selected jury (see below). If you pass, you will then be allowed to present you research in a format accessible to non-scientists in front of a public audience. At this point, the jury will give a formal final evaluation considering these four points:

- 1) The research work (skills and autonomy of the PhD candidate; originality of the PhD project)
- 2) The format and writing style of the thesis
- 3) The private defence/exam (aka: soutenance privée, colloque de thèse, private exam, or oral private exam)
- 4) The public defence/exam (aka: soutenance publique, public exam, or oral public exam)

The thesis defence usually takes place in the 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> year of enrolment in the program, providing that the minimum 12 ECTS of coursework (and the any possible additional requirements of the PhD programs with a study option) have been obtained and the mid-thesis exam has been successfully passed. It is the responsibility of the PhD student together with the thesis director to determine if a sufficient amount of work, of publication quality, has been completed in order to start the end of thesis process.

## A. Thesis format and writing practice

Consult the "Good Writing practices" and "How to format your thesis" sections (below) to duly organize and format the thesis document.

## **B. Select your jury**

A thesis jury needs to have minimum of 4 members and a recommended maximum of 6 and should include:

- The thesis director and co-director(s), if applicable
- Two experts minimum, with at least one from outside UNIL/CHUV/Unisanté. Note that experts should not have collaborated significantly to the thesis project to a level which could likely influence their assessment/decision. Experts should hold a doctorate degree.
- The jury president (nominated by the Doctoral School at the beginning of the thesis to chair the thesis committee).

Contact all jury members to find a suitable date and timing for the private thesis defence. Remember: all members of your jury must participate in your private exam. Once the date is fixed, book a room on the campus, at CHUV or at Unisanté to hold the private defence. The composition of the jury, as well as the date and location of the exam should be announced to the thesis office (<u>phdthesis@unil.ch</u>) at least *5 weeks prior to the private thesis defence* (see next point for detailed information).

#### C. Before the private defence (Art. 16 of the 2022 Rules "PhD en sciences de la vie")

You will need to send by email the following documents to phdthesis@unil.ch at least 5 weeks before the private defence:

- A paper **copy of the thesis** for the Doctoral school to send to the president <u>OR</u> the confirmation that the president of the thesis jury only requires the electronic version. In any case, please send a PDF version of your thesis to the Doctoral school (phdthesis@unil.ch).
- A letter signed by the thesis director indicating the name, address and e-mail of each jury member, and also the location, date and time chosen for the private defence.
- An updated version of your CV, including the list of publications, communications and conferences related to the thesis project.
- Two one-page summaries of the thesis, one in English and one in French. Each summary must be written on a separate page.
- A one-page summary of the thesis written for the general public, in French including the title of the thesis (in French), the name of the PhD student and the name of the host department of the thesis project.
- The Certificate with the credits obtained during the PhD has to be requested at the latest 4 weeks before the deposit of the thesis manuscript for the private defence to program.ls@unil.ch, or directly to the program coordinator for students enrolled in a program with a study option.
- Along with the items in this checklist: click here.

At the same time, send a copy of the thesis to all jury members. Each jury member should receive the electronic version of the thesis, unless they specifically request a hard copy (the printed document).

Around three weeks before the exam, the Doctoral School will send an e-mail to the jury, with the PhD candidate in copy (Cc) announcing the exam and asking them to send their report to the Doctoral School at least one week before the private defence. On this report, they will evaluate the format and content of the thesis and indicate whether they consider the thesis eligible for presentation at the private exam. After receiving these reports and before the private defence, the Doctoral School will send them to the president of the jury.

The Doctoral School will also send a request of payment for the *exam's taxes* (500 CHF) to the student's by email, addressed to the private postal address.

## 8. Private Defence

During the private thesis defence your knowledge in the thesis field will be evaluated.

The defence (1-2 hours) will be conducted in the following order:

• 20-40 minutes oral presentation by the PhD student

- 2 rounds of questions from the experts
- Deliberation by the jury

The language of the thesis defence should be either English or French; the language should be decided by common consent between the jury members, the thesis director and the PhD candidate.

During the deliberation, the jury assigns 3 grades (ranging from 1 to 6; a pass grade is 4; half points are accepted) evaluating three aspects of the thesis:

- The research work (skills and autonomy of the PhD candidate; originality of the PhD project)
- The format and writing style of the thesis
- The private examination, including presentation skills and responses to questions asked by the jury members

You will need to obtain *a minimum grade of 4 on each of these above-mentioned aspects* in order to pass the exam and to continue to the public defence. Given that you have successfully passed the private defence, you need to fix a date for the public thesis defence, together with the jury members (at least the jury president and thesis director must be present). The public defence should take place a *minimum 3 weeks following the private exam*. Once the date is agreed upon, you need to reserve an auditorium to hold the public defence and announce the location, date and time to the thesis office (phdthesis@unil.ch).

If the jury requires corrections to your thesis, they should be communicated to you orally by the president and, if relevant, other members of the jury. Without other indication, the thesis director is the person who is responsible for checking your corrections. Your thesis director has to receive the corrections, and announce to the thesis office (with the president in cc) that the new version of the thesis is acceptable in its revised form, *a few days before the public defence*.

The *electronic final version of the thesis* should be sent to the president of the jury, *prior to the public defence*. During the private defence, the "procès verbal" document will be filled out specifying whether the public defence will be held in French or English (or in another language, upon agreement of the jury members).

## 9. Public Defence

As indicated beforehand, the public thesis defence takes place at least **3** weeks following the private defence. At the end of the public defence, the members of the jury decide whether the thesis is judged as acceptable ("réussi") or not ("pas réussi"). If the judgement is positive, you will receive the "imprimatur" page (official approval that the thesis can be printed) from the jury president who must have signed it. A copy of this page needs to be included in all final copies of the thesis.

## 10. After the public defence

#### A. Bound copies of the thesis document

After the public defence, you have a *maximum of six months* to prepare official bound copies (see "How to format your thesis" below) of the thesis document and distribute them as follows:

- 1 copy for the Doctoral School to be sent to the thesis office
- 3 copies for the BCUL (Bibliothèque Cantonale et Universitaire Lausanne), one of them with a summary of the thesis in English. The copies for the BCUL should be accompanied by a form called "Avis de dépôt de these" available on our website <u>here (under the section</u> *After you have successfully passed your final exams).*

<u>If required</u> (to avoid wasting paper, time and money, we recommend that the jury members be contacted to make sure they really want a final hard copy of the thesis. You do not need to send a copy to the president, unless she/he requests it):

- 1 copy for the department where the research was done
- 1 copy for the thesis director
- 1 copy for each member of the jury

Please note that *PhD students must remain enrolled at the University of Lausanne* until the thesis has been deposited to the BCUL and to the Doctoral School.

### B. On-line publication of the thesis

The thesis can be published on-line at the University of Lausanne, through the SERVAL website.

### C. Order your diploma

Fill in the on-line form "Application de commande électronique de grade" available here.

# **Good writing practices**

Preparing students for having good writing practices is a responsibility UNIL takes very seriously. As a Doctoral School, we believe that scientific integrity & the prevention of plagiarism should be at the heart of the PhD training. We therefore encourage all the PhD students:

- To discuss about the good writing practices with the thesis director,
- To use the tools available at UNIL to ensure that all the written productions are free of any form of plagiarism. We strongly recommend that you do the self-training module: Avoiding plagiarism (to access use the activation key that can be asked to phdthesis@unil.ch

Additional information on this topic is available on our website in the section Copyright, Open Access & good writing practices

## How to format your thesis

#### A. General formatting requirements for the final thesis version

Some general advice from the "Annexes IV and V, Règlement 2022 pour l'obtention du grade de docteur ès sciences de la vie (PhD)":

- A4 format, 29.7 x 21 cm
- Double-sided printing
- Paper 80 gr/m<sup>2</sup>
- 40 lines/page maximum
- 15 mm external margin minimum
- Clean presentation of text, pictures and tables, without corrections
- Front cover of the thesis in cardstock (130 180 gr/m<sup>2</sup>); the official title cover is available <u>here</u>
- The official title page, identical to the front cover of the thesis, but printed on paper (80 gr/m2), with the possibility to include supplementary logos
- An exact reproduction of the "imprimatur" is printed at the back of the second title page (attributed by the thesis jury)
- Please note that the binding of the document cannot be done with rings or plastic

#### B. How to organize a thesis with published articles

To write your thesis with articles you need to have one or several articles posted, submitted, accepted or published. Only if your contribution is significant, the article will be considered as part of your thesis. The advantage of a thesis written with articles is that articles can replace the chapters of the results section. NB: before each article, you must include a brief summary of the results, indicating precisely and in detail your contribution to each article (2-3 pages), as well as the stage of publication of the article (e.g. submitted, under review, published, etc.).

Important note on self-plagiarism: The sections indicated hereafter with " $\rightarrow$ " must reflect the individual PhD student's original work, and not be a replication of text available in other articles/manuscripts even if authored or co-authored by the PhD student. Indeed, articles are very often a multi-author work, therefore using blocks of text of other articles in these sections of your thesis, which is a single author work, is considered as (self-)plagiarism. Briefly referring to other articles, with proper citation, is evidently permitted if it contributes to the overall understanding (also refer to the UNIL Directives 0.3 and 0.3bis)

A thesis with articles should be structured as follows (Annexe III des Directives 2022 pour le Doctorat ès sciences de la vie):

- Front cover of the thesis in cardstock (130 180 gr/m<sup>2</sup>); the official title cover is available <u>here</u>
- The official title page, identical to the front cover of the thesis, but printed on paper (80 gr/m2), with the possibility to include supplementary logos
- An exact reproduction of the Imprimatur page\* is printed at the back of the second title page (\*signed and handed by the thesis president after a successful public defense)
- Acknowledgements (max 1 page)
- > Abstract (in English & French, max 1 page for each language)
- → Introduction (10-60 pages)
- Brief summary of the results, indicating precisely and in detail your contribution to each article and the stage of publication (2-3 pages)
- Article(s) should be presented as individual chapter(s)
- → Discussion (5-30 pages)
- References

## C. How to organize a thesis without published articles

("Annexes IV & V Règlement 2022 pour l'obtention du grade de docteur ès sciences de la vie (PhD)"):

This type of thesis should be structured as follows:

- Front cover of the thesis in cardstock (130 180 gr/m<sup>2</sup>); the official title cover is available here
- The official title page, identical to the front cover of the thesis, but printed on paper (80 gr/m2), with the possibility to include supplementary logos
- An exact reproduction of the Imprimatur page\* is printed at the back of the second title page (\*signed and handed by the thesis president after a successful public defense)
- Acknowledgements (max 1 page)
- Abstract (in English & French, max 1 page)
- List of Abbreviations
- Table of Contents
- List of Figures
- List of Tables
- Introduction (10-60 pages)
- Materials and Methods
- Results
- Discussion (5-30 pages)
- References

Please **keep in mind the following points** when writing a thesis with or without articles:

- Make sure to acquaint yourself with the applicable regulations on Copyright, Open Access & good writing practices
- Please download the thesis official title page from our website.
- The imprimatur page has to immediately follow the title page in the final thesis version. This can be done by scanning the original imprimatur page and inserting it into the thesis document (please do not use a jpg-photo, the quality is not sufficient).
- A good introduction should show that you have acquired a broad knowledge of the previous and on-going research in your field, do not forget appropriate referencing.
- A good discussion should express critical thinking concerning what you have learned:
- o Discussing your results in light of other's results, making an overall analysis of the publications reviewed
- Analysing the quality and limitations of the results
- Formulating conclusions
- Future perspectives

### If you have questions regarding the format of your thesis, or the procedure, do not hesitate to contact the <u>Thesis Office</u> : Doctoral School FBM phdthesis@unil.ch

021 692 40 09 (backup if absent 021 692 40 01)

http://www.unil.ch/ecoledoctoralefbm

#### **Mailing Address:**

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#### Ecole doctorale

Faculté de biologie et de médecine

Version July 2023. Only regulatory texts are authentic. All titles and functions may apply to both women and men.