MASTER'S THESIS REGULATIONS (DECEMBER 6, 2024)

GENERAL INFORMATION

A master's thesis represents a supervised research project realized as a part of the study program. Accordingly, it cannot be the object of an employment contract or a specific financial compensation. A thesis must represent novel research work and must provide a challenging and educational project, which can be completed in six months full-time work with a reasonable effort.

The legally binding regulations on the Master's thesis can be found in the German-language documents "Reglement" and "Studienplan", which can be found here: "Legal basis".

DURATION

- In general, all work on the master's thesis including submission of the written thesis and other items (see below) has to be completed within six months.
- For the reason of part time working (confirmed by the employer), the official duration can be extended up to nine months. It can only be extended further when other important reasons for an extension apply (like e.g. prolonged sickness, military service, unexpected difficulties in the course of the thesis which are not the student's responsibility, etc). The student has to submit a written request to the study coordination including proof (e.g., medical certificate, confirmation from the thesis supervisor) at least 2 weeks before the end of those six months.

EXAMINERS AND SUPERVISORS

- Each master's thesis must have a first supervisor (primary responsibility of supervision) who is also the first examiner (primary responsibility for grading) and a second supervisor who will also be the second examiner. A maximum of one additional supervisor can be included in the supervision team.
- The first supervisor/examiner of a master's thesis must be a professor, privatdozent or group head of UniBE or BFH who is lecturing within this BME master's program.
- The second supervisor/examiner must have at least a master's degree or an equivalent degree in biomedical engineering or in a related field.
- As a special opportunity, it is possible for outstanding candidates to realize an externally co-supervised master's thesis within a company or at another university. The student and the external (i.e. second) supervisor/examiner have to convince an eligible local first supervisor/examiner to take the responsibility for the thesis project.

INTELLECTUAL PROPERTY RIGHTS AND CONFIDENTIALITY AGREEMENT

- Management of intellectual property (IP) rights lies within the responsibility of the first supervisor.
- The program management supplies standard contracts for regulation of IP rights and confidentiality for regular master's theses within research groups at the University of Bern and for master's theses supervised externally in collaboration with a company or a university outside Switzerland Templates for these contracts can be found on Ilias.. For master's theses carried out at the Bern University of Applied Sciences, the standard contracts of BFH should be used.

PROCEDURE

PROJECT PROPOSAL

- All master thesis project proposals are to be submitted by potential first supervisors to the study coordination for
 evaluation. Templates for proposals are provided on <u>llias</u>. The project description must include background information of
 the research, the goal of the project, the specific nature of the research work, and the required skills and experience of the
 student.
- All proposals will be evaluated by the program management to ensure that the project meets the required standards for scientific originality, organization, technical challenge, feasibility, and depth of supervision. A proposal may be approved, rejected or returned for revision prior to approval and publication on Ilias.
- In general, all approved proposals will be published on Ilias. If the project is of a confidential nature, the author of the proposal may request that the document is not published.





REGISTRATION

- According to the official regulations of the master's program, a student must have collected all required ECTS credits from courses to start with the master's thesis. However, the program management has the possibility to make exceptions from this rule. Therefore, the following general exception was defined: the student must have acquired all ECTS credits from mandatory courses. In addition, not more than 6 ECTS credits from elective courses can be missing. Further exceptions in case of minimal deviations from these conditions can be made on request. In this case, the student has to submit a letter of motivation including a list of all missing courses to the study coordination. It is advisable to submit this letter by email as soon as all required courses have been graded.
- Before registration, all courses in KSL have to be credited to the corresponding modules of the master's program.
- The student has to submit the following documents to the study coordination before the start of the master's thesis:
 - The project proposal
 - The official registration form with the signatures of the master student, the first examiner/supervisor, and the second examiner/supervisor
 - o If the student plans to extend the thesis beyond six months: an employment confirmation for the duration of the master's project
- The registration form is evaluated by the study coordination in order to check if the student fulfills all requirements,
 followed by a final signature of the program management. The study coordination informs all people involved upon their decision on the registration.
- The master's project is not allowed to start before a positive decision has been sent.
- Note that after registering to the master's thesis, you will receive the bill of the graduation fee which should be paid within 30 days. Inform us if you want to pay this bill after having fulfilled all requirements for graduation. However, be aware that this will lead to a delayed graduation.

THE USE OF AI TOOLS

According to the rules of the University of Bern, the supervisor decides whether Artificial Intelligence tools like ChatGPT or DeepL can be used to a certain extent (see also the <u>official guidelines</u>). However, it must be ensured that the main part of the work is the student's own contribution. In addition, the student must declare in the thesis where and to what extent Al tools have been used. Moreover, the use of Al must be declared in the declaration of originality. Therefore, the University of Bern supplies two versions of the declaration of originality, depending on whether Al tools are used or not. Find the text of these declarations on the last page.

SUBMISSION

All required documents must be submitted to the study coordination office, to all examiners and supervisors within the official deadline indicated on the student's registration form. Submission in due time is a requirement of project planning and organization and is therefore part of the thesis evaluation. As a consequence, submission delays may lead to deductions in the grading. Submission of other project data may be requested by the supervisors.

The following items must be submitted by the closing date:

• The thesis document

- The form of the written thesis is to be set in consultation and agreement with the first supervisor and should fulfill the general requirements of an academic thesis. Thesis templates are available on Ilias; the contents of the front page and the structure of the template must be used, the logos on the front page must not be removed or replaced.
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- One printed and one PDF copy of the thesis document must be submitted to both examiners/supervisors, unless the printed copy is explicitly declined by an examiner. (If it is sent by registered mail, the post stamp is regarded as submission date). Simultaneously, a PDF copy has to be sent to the study coordination and all supervisors. We request that all printed copies are bound properly.

• The declaration of originality

 The master's thesis must contain a declaration of originality, which is signed by the master student. In addition, this declaration of originality has to be printed separately, signed and submitted to the <u>study coordination</u>. The printed and signed document can be sent by post (to be sent by normal mail, not by registered mail) or dropped off at the office

• The one-page summary

- The template and style sheet available on Ilias must be used. Please submit the document in both Word and PDF format.
- Since the one-page summary will be published in various forms, its content must be suitable for publication even
 if the thesis itself contains confidential information. It has to be written in English and be approved by all
 supervisors before submission.

• The signed declaration of consent on the publication of the thesis document

This declaration available on Ilias states whether the student agrees or does not agree with publication of his/her thesis document. A scanned document cant be submitted.

PRESENTATION AND DEFENSE

- The presentation and defense must take place at UniBe or BFH-TI no earlier than 1 week and within 4 weeks after complete and correct submission of all required documents. Date and location must be communicated to the study coordination office at least 2 weeks in advance.
- The presentation of the master's thesis lasts 20 to 30 minutes with subsequent defense. In general, the presentation is open to the public and immediately followed by the master's thesis defense. If the student does not agree with publication of the thesis, the defense will be closed to the public. Both the first and the second examiner/supervisor must imperatively be present for both presentation and defense. The additional supervisor should be present if feasible.
- An electronic version of the final presentation (in PDF format) must be submitted to the study coordination within two
 weeks after the presentation.

FINAL EVALUATION

- The final evaluation must be completed at the thesis defense. The mark for the project and the written document counts for 85%, the mark for the defense counts for 15% of the total mark for the master's thesis.
- The first and second examiner/supervisor should agree on the marks. In case of disagreement, the mean of the proposed marks will be used. The opinion of the additional supervisor shall be heard.
 Both marks have to be transmitted to the study coordination using the standard final evaluation sheet, which is sent to the first examiner by the study coordination.

GRADUATION

- To be granted the master's title, the following requirements must be fulfilled:
 - o The registration form for granting the diploma (graduation form) has been handed in to the study coordination.
 - o The PDF version of the thesis presentation has been submitted.
 - o The graduation fee of 300 CHF has been paid.
 - All badges and keys have been returned.¹
 - All ECTS credits required for graduation have been entered into the study profile in KSL.
 - o The official rules for registration at the University of Bern have to be observed (see Graduation).
- The day when the last mark of the master's program has been submitted to the study coordination defines the graduation date. In most cases, this is the day that is associated with the mark for the master's thesis.

¹ The Insel badge must be returned to the «<u>Front Office</u>» of Inselspital which is situated on the ground floor – do not use the excalator to go up.

THE DECLARATION OF ORIGINALITY

The wording of the declaration of originality is different depending on whether AI tools were used in the thesis or not. Therefore, please select one of the two wordings below.

So far, the University of Bern has not supplied an English translation of this text. Therefore, the respective German text must be used in the thesis.

Note that text written in italics is our comment and must be removed in your declaration.

1. The wording if the use of AI tools is not permitted:

"Ich erkläre hiermit, dass ich diese Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen benutzt habe. Alle Stellen, die wörtlich oder sinngemäss aus Quellen entnommen wurden, habe ich als solche gekennzeichnet. Ich erkläre weiter, dass ich keine unerlaubten Hilfsmittel verwendet habe, namentlich keine weiteren Personen mir beim Verfassen der Arbeit geholfen haben und ich keine Technologien der Künstlichen Intelligenz eingesetzt habe. Mir ist bekannt, dass andernfalls die Arbeit mit der Note 1 bewertet wird bzw. der Senat gemäss Artikel 36 Absatz 1 Buchstabe r des Gesetzes vom 5. September 1996 über die Universität zum Entzug des auf Grund dieser Arbeit verliehenen Titels berechtigt ist.

Für die Zwecke der Begutachtung und der Überprüfung der Einhaltung der Selbständigkeitserklärung bzw. der Reglemente betreffend Plagiate erteile ich der Universität Bern das Recht, die dazu erforderlichen Personendaten zu bearbeiten und Nutzungshandlungen vorzunehmen, insbesondere die schriftliche Arbeit zu vervielfältigen und dauerhaft in einer Datenbank zu speichern sowie diese zur Überprüfung von Arbeiten Dritter zu verwenden oder hierzu zur Verfügung zu stellen."

2. The wording if the use of AI tools is permitted:

"Ich erkläre hiermit, dass ich diese Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen benutzt habe. Alle Stellen, die wörtlich oder sinngemäss aus Quellen entnommen wurden, habe ich als solche gekennzeichnet. Als Hilfsmittel habe ich Künstliche Intelligenz verwendet. Sämtliche Elemente, die ich von einer Künstlichen Intelligenz übernommen habe, werden als solche deklariert und es finden sich die genaue Bezeichnung der verwendeten Technologie sowie die Angabe der «Prompts», die ich dafür eingesetzt habe. Mir ist bekannt, dass andernfalls die Arbeit mit der Note 1 bewertet wird bzw. der Senat gemäss Artikel 36 Absatz 1 Buchstabe r des Gesetzes vom 5. September 1996 über die Universität zum Entzug des auf Grund dieser Arbeit verliehenen Titels berechtigt ist.

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