



## Bachelor thesis – Grading Form

Please return this form as a pdf file to [g.dresler@bioc.uzh.ch](mailto:g.dresler@bioc.uzh.ch)

<b>Student Name.</b>	
<b>Matrikel No.</b>	
<b>Title of thesis</b>	
<b>Referee</b>	

## Bachelor thesis – Grading

	<b>Grade</b>
Written Thesis	
Practical Work	
<b>Final grade</b>	

*The grading scale is in quarter grades. In case of either a 6.0 or a  $\leq 4.0$ , a second reviewer has to approve the grade.*

**Signature and Date**

.....

# Declaration of Academic Honesty

## Declaration

I declare that the present work is original and written by myself without unauthorized assistance. If it is a work by multiple authors, I confirm that the respective parts of the work have been detailed in an author contribution paragraph. Furthermore, I confirm that none of this work has been submitted for credits towards other academic achievements at the University of Zurich or any other university or educational institution, nor will be submitted in the future by my own actions as credit towards any further academic achievement.

## Use of Sources

I declare that I provided a reference list for all information of the work that derives from external sources, and that I cited original research sources whenever possible. Likewise, I confirm that I provided appropriate references for unpublished results and/or statements quoted in the work.

## Guidelines on the Use of A. I. Tools

I discussed with my supervisors when and to what extent it is appropriate to use automatic text generation. I am aware that it should enhance the quality of a work, and that it is never a shortcut to avoid a deep engagement with the subject matter. I am fully responsible for the selection, adoption, and for all results of the A. I.-generated output that I use. I specified the A. I. tools used in a dedicated methods section. Furthermore, I am aware of the “Guidelines on A.I. tools for lecturers and students” of the Faculty of Science of University of Zurich (Link: [Studium und KI](#)).

## Sanctions

I acknowledge that work violating the principles stated in this declaration of academic honesty, particularly those that contain unattributed quotations or paraphrases, will be considered as plagiarism, and may entail corresponding legal and disciplinary consequences (in accordance with §§ 11ff of the Disciplinary Regulations of the University of Zurich).

**I hereby confirm adherence to the guidelines with my signature:**

**Signature and Date:** .....

## Bachelor thesis – Grading Criteria

Thesis	Practical work
<p><b>1. Abstract and Introduction</b></p> <ul style="list-style-type: none"> <li>• Concise overview of the research field relevant to the thesis, and identification of important open questions</li> <li>• Clear description of the problem addressed in the thesis, and clear statement of the project goals</li> <li>• Appropriate literature citations in a uniform and consistent style and format (applies to whole thesis)</li> </ul>	<p><b>4. Lab work</b></p> <ul style="list-style-type: none"> <li>• Quality of experimental work</li> <li>• Understanding of the theory behind experimental techniques</li> <li>• Detailed documentation in the lab book</li> <li>• Calm and organized lab work</li> </ul>
<p><b>2. Methods and Results</b></p> <ul style="list-style-type: none"> <li>• Clear and complete description of the methods used such that all experiments can be reproduced by others</li> <li>• Clear description of the logic and hypotheses underlying the choice of performed experiments</li> <li>• Clear and complete presentation and correct interpretation of the experimental results</li> <li>• Appropriate quality and quantity of results</li> <li>• Correct presentation and labelling of figures and tables</li> <li>• Appropriate information on statistical analysis</li> </ul>	<p><b>5. Experimental design and independent work</b></p> <ul style="list-style-type: none"> <li>• Understands the objectives, potential, and limitations of experimental approaches as explained by supervisor</li> <li>• Capable of independently following lab manuals or protocols after initial guidance</li> <li>• Demonstrates a basic ability to modify or adjust experimental procedures when necessary</li> <li>• With support, selects appropriate experimental controls and makes initial efforts to troubleshoot experimental issues.</li> </ul>
<p><b>3. Discussion and Conclusions</b></p> <ul style="list-style-type: none"> <li>• Concise discussion and critical evaluation of the obtained results with respect to the original goals</li> <li>• Discussion of the results into a more general context within the research field</li> <li>• Discussion of the possibilities and limitations of the applied experimental techniques</li> <li>• Formulation of new hypotheses, outlook for future work</li> </ul>	<p><b>6. Communication and attitude</b></p> <ul style="list-style-type: none"> <li>• Communicative attitude in the laboratory</li> <li>• Ability to ask for and make constructive use of advice</li> <li>• Reports mistakes promptly and honestly, understanding that errors are part of lab work when handled responsibly.</li> <li>• Professional attitude towards supervisor and colleagues</li> <li>• Contributes to general lab tasks</li> </ul>

## Bachelor thesis guidelines for experimental projects

The thesis should have a total length of 10 -15 pages (1.5 line spacing, Source Sans Pro 10pt or similar), excluding the title page, abstract, table of contents, Figures and references. The maximum word count should not exceed 7500. The thesis can be written using Microsoft word or Overleaf/Tex or similar. The following can be used as a rough guideline:

- Title: Maximum 100 characters (incl. spaces)
- Abstract: 100-150 words
- Include Table of Contents
- Introduction/ Background
- Aims of the project
- Material & Methods
- Results
- Discussion
- References: not less than 5, not more than 25.
- Figures: max. 2 figures for the introduction. The figures in the results section should be used to illustrate key results of the project (i.e. there is no need to show every single SDS-PAGE gel run during the project) but should be clearly labelled and include a Figure legend. Introductory figure can be adapted from the literature, provided that it is appropriately cited.

The number of pages is based on the text with figures and tables but does not include the cover page, the list of references and the table of contents. For the main text, please use Source Sans Pro font size 10 pt or similar. Headers can use larger font (12-14 pt) and/or bold typeface. Figure footers and table headers should be distinguishable from the main text (smaller typeface, italic). Please number the pages and include a table of contents. The following fonts (or fonts that look similar) can be used for tables: Arial, Courier, Source Sans Pro, Times New Roman. Please format the text as full justified text.

The thesis should be provided as a word file to the supervisor.

Figures need to be inserted in good quality (min. 300 dpi). Tables should be prepared and inserted directly into the text. The figures and tables need to be numbered, given an appropriate title and are clearly but shortly described by a legend. All figures are referenced in the text via their numbers and the figure numbering needs to be consistent with the order in which the figures are referred to in the text. A consistent figure/table design should be ensured within the thesis.

For references, it is recommended to use reference management software (Citavi, EndNote, Mendeley, Ref-Works etc.). If there is no experience in the use of these software, ask for an introduction by the supervisor. Some good citation styles are Vancouver, AMA, Nature, and CSE. Figures adapted from other sources must be clearly credited and referenced in the figure legend.

### **Thesis structure:**

*Cover page:* Should contain the names of the university, the department, the group, the thesis title, the type of the thesis (Bachelor thesis), the name of the author and the date of submission.

*Title:* The title should be concise and informative.

*Table of contents:* Should contain descriptive chapter headers in a logical structure and with numbering. Main chapters can be outlined in individual subsections. The subdivision in sections should help maintain a logical structure and should not divide the text into too short, thematically discontinuous sections (rough guide: at least half a page per subsection).

*Abstract:* The abstract allows potential readers to judge the relevance of the work described in the thesis. It should include the key terms and briefly but concisely summarize the scope, purpose, results and implications of the project. References should not be included and unconventional abbreviations (excluding common terms) should be avoided. Also avoid details & numbers (except this is your main result).

*Introduction:* The introduction should cover the scientific background of the subject matters and describe the literature (i.e. the “state of the art”) relevant to the project. The introduction should introduce the reader to the topic, set the focus of the project and summarize the relevant aspects/goals/relevant questions that motivate the project’s aims. The description of the background should be accessible to a broad scientific readership and not assume detailed knowledge of the subject matter. Therefore, jargon and concepts not familiar to non-specialists should be avoided if not adequately described. To improve comprehensibility, subheadings can be used to guide the reader through different thematic sections.

*Objectives:* This section should state the main scientific goal of the project (i.e. “big picture”) in terms of a scientific question that is being addressed by the work. While the introduction focuses on what is known about the topic, the Aims section focuses on the unknown. Provide an outline of the specific aims of the project and how they address the overall goals. The objectives should be stated at the end of the introduction.

*Methods:* The methods section provides the experimental details and protocols used during the project. These should be written concisely but with sufficient level of detail.

*Results:* The main text will provide a description of the experimental work and should be broken up into sections describing each experimental step. Note that the results should not be a copy of the experimental methods section. Instead, the description of each experiment or experimental step should begin with a few sentences explaining the context and the motivation for the experiment and the overall approach. The results of the experiment are then described with reference to relevant figures/tables. This is followed by a few sentences to interpret the results and describe the meaning for the problem. Use logical subheadings in order to prevent yourself from writing long and unstructured paragraphs and to communicate the focus of your text to the reader.

*Discussion/Conclusion:* The discussion should briefly summarize the results and their interpretation, and should provide an outlook of future follow-up work, unsolved scientific questions or problems, challenges associated with the experimental approach taken in the thesis and alternative approaches. Moreover, the conclusion provides a platform to the author to include and discuss their assessment of the subject matters in an adequate manner, and provide forward looking recommendations on further studies.

*Tables and Figures:* Illustrations are a good tool to help the reader understand complex scientific matters. Thus, you should consider including a figure that summarizes the results or the main concepts of the thesis in the discussion. Figures illustrating results should be of good quality and designed to convey key results of the experiments. Ensure uniform formatting of figures/tables. Furthermore, for each figure/table an appropriate title describing the key content/key concept of the illustration is to be given, as well as a descriptive legend in written form that helps understanding the basic content of the figure without previous knowledge and without the need of reading the main text of the thesis (includes abbreviations, colors, illustrative symbols, the type of experiment, etc). Make sure that the size of used images, the font size and the quality of the images in general allow the reader to recognize everything depicted in the illustration.