

Overall instructions for the written report

The thesis must be based on empirical data that the student processed under supervision. This empirical material may be collected during the course period of the course or consist of previously gathered data. Data analysis is carried out with support from the supervisor and the research group, using either quantitative or qualitative methods. The thesis should follow the structure of a scientific article, adhering to accepted norms and standards for publications in international scientific journals. While the thesis may be written in Swedish, writing in English is strongly recommended. The content of the thesis should correspond to 20 weeks of full-time study. Evaluation will be based on specific criteria. All submitted texts are automatically checked for plagiarism using Ouriginal.

Layout

The thesis should typically be 20–25 pages in length and must not exceed 40 pages, including appendices but excluding references. Although the format follows that of a scientific article, it is advisable to expand the introduction and discussion sections to ensure that the full scope of the student's work is presented, including any "negative" results.

The title page (in English or Swedish), abstract (always in English), and popular science summary (always in Swedish) must follow the specific template be written according to a specific template that will be provided to the students. The abstract, introduction, methods, results, discussion, and popular science summary should be written in Times New Roman, 11 p, 1.5 line spacing, while the title page, list of abbreviations, table of contents, references, and appendices should use single spacing. Headings and subheadings may be formatted in Arial. Page numbers must be included. Abbreviations should be explained upon first use in the text. When presenting numerical data, use a decimal point (.) rather than a decimal comma (,).

Disposition of the scientific report

A common disposition of a scientific article is described in the sections below. Subtitles to use if you write your report in Swedish are given in italics.

- Cover page / *Försättsblad* (Optional)
- Title page / *Titelsida* (Mandatory to use the template)
- Abstract / *Abstract* (Mandatory to use the template)
- Populärvetenskaplig sammanfattning (Mandatory to use the template)
- Table of Contents / *Innehållsförteckning*
- List of abbreviations / *Lista över förkortningar*
- Introduction / *Bakgrund*
- Aim / *Syfte*
- Specific research questions / *Vetenskapliga frågeställningar*
- Material and Methods / *Material och metoder*
- Student's contribution / *Studentens insats*
- Ethics / *Etik*
- Results / *Resultat*
- Discussion / *Diskussion*
 - Strengths and weaknesses / *Styrkor och svagheter*
- Conclusions / *Slutsatser*
- GenAI disclosure statement / *Redovisning av användandet av AI och AI-assisterade*

teknologier

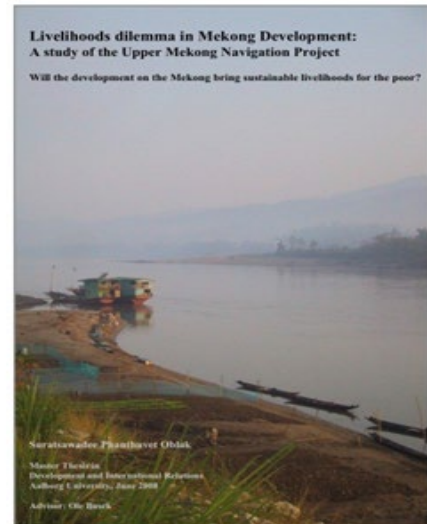
- Acknowledgements / *Tack*
- References / *Referenser*
- Appendices / *Bilagor*

Cover page / *Försättsblad* (optional)

The cover page serves as the front page of the report and is designed by the student. It may include a picture, illustration, or other visual elements that reflect the project. The cover page typically displays the project title, the author's name, and the course information.

Title page / *Titelsida*

It is mandatory to use the official template in English or the Swedish version for the title page. Replace all text marked in red in the template with your own information. Ensure that the title is concise, informative, and accurately reflects the content of the report.



Abstract / *Abstract* (always in English)

The abstract must follow the mandatory template, replacing all text highlighted in red with your own information. The following headings must be included: **Introduction, Aim, Methods, Results, and Conclusions**. The abstract should be written in English and include an English title, even if the rest of the report is in Swedish. It is a summary of the study, with emphasis on the results and conclusions. The length should be between **100 and 300 words**, with 300 words as the absolute maximum. The abstract must be understandable on its own, independent of the rest of the report, so explain abbreviations and present the results necessary to make the conclusions clear. Avoid using references in the abstract. Provide **3–5 keywords** for the report.

Popular science summary (must be written in Swedish)

The popular science summary, including a popular science title, must always be written in Swedish. The text should be very simple and understandable even for someone without a medical background. It should **not** be a Swedish translation of the scientific abstract, but an independent text that explains your work in a clear and accessible way. Avoid medical jargon, technical terms, and abbreviations. Provide an overview of what you investigated, what you found, and, if possible, how the results can be applied in society or in future research. The summary should be **300–500 words long**. If possible, ask someone who does not work in medicine or natural sciences to read it and give feedback.

Table of Contents / Innehållsförteckning

Place the table of contents after the abstract and the popular science summary. Use the built-in formatting styles in your word processing program so that the table of contents is generated automatically and can be easily updated when you make changes to the document.

List of abbreviations / Lista över förkortningar

Explain abbreviations that are used three or more times the first time they appear, and include them in the list of abbreviations. If an abbreviation is only used twice, remove the abbreviation and instead write out the full word or term. Sort the abbreviations in the list in alphabetical order.

Introduction or Background / Introduktion eller Bakgrund

The introduction of the thesis should provide the reader with a relevant and clear background to the subject being studied. **It should present the overall problem area** as well as previous research conducted in the field. The introduction should start broadly to place the topic in context, then gradually narrow down to clearly define the specific area that the study focuses on. A key part of the introduction is **to identify and describe a knowledge gap**, that is, what has not yet been sufficiently explored or understood in the field. This knowledge gap is what justifies why the study is being carried out. It is important to formulate this in a way that makes it clear to the reader why the study is relevant and why it is reasonable and meaningful to ask the specific research questions you have chosen. Unlike the introduction in a short original article, the background in a thesis is expected to demonstrate a deeper understanding of the subject. This means that, in addition to referencing primary studies, you may also use review articles to provide a more comprehensive picture of the current state of research.

Aim / Syfte

The aim of the study should be stated briefly and clearly. It should indicate what you intend to investigate and how it relates to the background you have presented. The aim serves as an overall direction for the study and should have a clear connection to the knowledge gap identified in the introduction.

Specific research questions / Vetenskapliga frågeställningar

To make the aim more concrete, you should formulate specific scientific research questions. These serve as a way to break down the aim into more defined and manageable parts that can be answered using your chosen method. The research questions should be clear, focused, and relevant in relation to the aim. If applicable, you can also formulate a hypothesis, that is, an expected answer to the research question that you will test in your study.

Material and Methods / Material och metoder

The choice of research methods should be firmly grounded in the study's aim and the specific research questions. This section must provide a comprehensive and transparent account of how the study was conducted, enabling readers to evaluate its rigor and reproducibility. Begin by presenting the study design, clearly stating the type of study (e.g., experimental, observational, cohort, case-control, or qualitative) and justifying why this design is appropriate for addressing the research questions. Next, describe the study population, including inclusion and exclusion criteria, sampling strategy, and sample size. For patient-based studies, report relevant clinical characteristics. If experimental animals were used, specify species, number, and ethical considerations. Detail the data collection procedures, explaining how data were obtained and which instruments or protocols were employed. If

biological materials or tissues were involved, outline how they were collected, processed, and prepared for analysis. Define the variables examined in the study, clarifying how they were measured or categorized. Indicate which variables are primary and secondary, and explain their relevance to the research aim. Specify the outcomes, describing the endpoints or measures used to evaluate the research questions and why these outcomes were chosen. Finally, provide a clear account of the statistical analysis. Identify the statistical tests and models applied, the software used, significance thresholds, and any adjustments for confounding factors. For qualitative studies, describe the analytic approach (e.g., thematic or content analysis) and coding procedures. All methods should be documented in your own words rather than copied from protocols, ensuring clarity and transparency. The level of detail should allow readers to follow the study's design and analytical process and critically assess the validity of the findings. Common subheadings include: ***Study Design, Study Population, Data Collection Procedures, Variables, Outcomes, and Statistical Analysis.***

Student's contribution / Studentens insats

Specify your individual contribution to the project. This is particularly important in large studies involving extensive data analysis or when you have received assistance with certain tasks, such as statistical analyses.

Ethics / Etik

Provide a basic ethical reflection. Describe potential risks (for example, issues related to autonomy, discomfort, or handling of sensitive personal data) and the expected medical benefits (such as preventive measures, method development, patient care, or treatment) associated with the project. Weigh disadvantages and advantages against each other and explain why the thesis project is justified. Describe how research data will be managed to prevent unauthorized access, and use the terms de-identified, pseudonymized, or anonymized research data correctly. If your project required approval from the Swedish Ethical Review Authority or the Animal Ethics Committee, include the reference number for this approval. A useful resource on research ethics is The European Code of Conduct for Research Integrity, available via the link [The European Code of Conduct for Research Integrity \(ALLEA\)](#).

Results / Resultat

The results of the study should be reported in a clear and rigorous manner. This section should only present the findings from your own work. You should aim to describe your results without interpreting or evaluating them. Present your results in the text and refer to tables and figures to display data where appropriate. Make sure to include negative results as well. Instructions for tables and figures are provided below.

Discussion / Diskussion

The discussion section begins with a brief summary of the study's main findings. The results are then discussed in relation to other research in the field, with references to published studies. Discuss and interpret only the results presented in your results section, starting with the most important findings. Draw the conclusions you can, and then suggest how the experiment could be modified to properly test the hypothesis or hypotheses in future studies. Finally, consider the next steps: What questions remain? Did the study lead you to any new questions? Try to formulate a new hypothesis and briefly propose experiments that could

further address the main question. Be creative and do not be afraid to speculate! Avoid citing review articles in the discussion.

Strengths and weaknesses / *Styrkor och svagheter*

The strengths and weaknesses of the study should be discussed and evaluated under a subheading in the discussion section. Most studies require a critical review of the study material, the analytical methods, and/or the experimental design. Determine whether you asked the right question in the first place. Assess whether the experimental design adequately addressed the hypothesis and whether it was properly controlled.

Conclusions / *Slutsatser*

Describe the conclusions that can be drawn from the study results and how this knowledge may be meaningful for human health and any potential clinical or medical relevance. What significance could your study have for future research? Where applicable, also describe more concretely what can be done to improve the situation for the patient group studied.

GenAI disclosure statement / *Redovisning av användandet av AI och AI-assisterade teknologier*

Report all use of GenAI tools. The following text can be used as a template:

During the preparation of this work, I used [NAME TOOL/SERVICE] to/for [PURPOSE]. [DETAILS OR EXAMPLES of how it assisted you.] After using the tool(s), I reviewed and edited the content as needed. [DETAILS OR EXAMPLES of what you did, such as checking for errors, bias, altered content, etc.]. I take full responsibility for the content of the work.

If GenAI has **not** been used, state this as follows:

During the preparation of this work, no GenAI tools were used.

Acknowledgements / *Tack*

Use this section to recognize and thank individuals or organizations that contributed to making the study possible, such as supervisors and collaborators.

References / *Referenser*

References should be formatted according to the Vancouver system. Use the reference management software EndNote® with the style “*Numbered*” or “*Vancouver*” to ensure correct formatting. References to online sources should be avoided as much as possible. If you do cite a web-based source, the full URL must be provided along with both the publication date (if available) and the date you accessed the information. It is recommended that the number of references does not exceed 50.

Appendices / *Bilagor*

Appendices may include supplementary material such as tables, figures, questionnaires, or other documents used in the project that are not included in the main text.

Instructions for Tables

All tables must be highly readable. Always use tables instead of bullet lists. Tables should be placed within the text or as an appendix. They must be numbered in the order they appear in the text (Table 1, Table 2, etc.), and if placed in the text, they should be positioned as close as possible to their first mention. The table number, title, and explanatory text **should be placed directly above the table**, while all source material and/or notes such as abbreviations and symbol explanations should be placed directly below the table. A sans-serif font such as Arial may be used in tables, and if necessary, the font size can be reduced to 10 pt with single line spacing. Every table must be referenced in the text. Tables should fit within the same margins as the main body text and should not extend into the margins.

Instructions for Figures

Figures should be placed in the text or in an appendix and numbered in the order they appear in the text (Figure 1, Figure 2, etc.). The figure number, title, and caption **should be placed directly below the figure**. The X and Y axes must have clearly indicated units. All abbreviations and symbols used in the figure should be explained. A sans-serif font such as Arial may be used in figures, and if necessary, the font size can be reduced and single line spacing applied, most importantly, readability must be maintained. If the figure is taken from a reference, this reference should be cited in the figure caption. Every figure must be referenced in the text.