Indications for your master's thesis

Please note that the following indications are just recommendations from the Faculty for students who are not familiar with the German regulations concerning a master's thesis. Details might be discussed with the respective supervisor(s).

Scope and structure

A master's thesis should have approx. 60 pages (DIN A4, including tables and images).

Cover

- Title
- Author
- "Master's Thesis at the Faculty for Forest Science and Forest Ecology of the Georg-August University Göttingen"
- Date of submission
- Supervisors

Table of contents

- Headings of the chapters with respective page numbers
- Max. three levels of subheadings (2, 2.1, 2.1.1)

Abstract

- In German and English (incl. Title)
- Summary of the objectives, methods, results and conclusions

Introduction (approx. 2-5 p.)

- Overview of the literature (make sure to cite correctly!)
- State of the Art
- Problem formulating (hypothesis, objectives)

Materials and methods (not necessary for

exclusive literature research)

- If applicable, description of study area, location, size
- Study set up
- Study method
- Statistical analysis

Describe the used materials and methods in a manner in which anyone not involved would be able to repeat the study.

Results

- Findings during the study in relation to the formulated hypothesis
- Quantitative data is normally shown in tables and diagrams
- No references in this part

Discussion

- Analysis of the results in relation to the formulated problem and hypothesis
- References and comparisons with existing literature
- Confirm or refute your hypothesis

Conclusion

- Interpretation and re-evaluation of the results
- Consequences
- Recommendation for further studies

Bibliography

• Complete list of all cited literature

Affirmation

• On an extra page, you have to affirm that you did the work on your own (including your handwritten signature)

Format

- Margin: 2(-3) cm, left margin 3(-4) cm
- Paging starts with the introduction
- Font : size 12, Times New Roman (for other fonts like Arial, a smaller font size has to be chosen)
- Line spacing 1,5
- Justified text with hyphenation

Units, abbreviations and spelling

- Separation of decimal numbers with a point in English (example: 3.14); with a comma in German (example: 3,14)
- For decimals smaller than one, put a zero before the comma
- Long numbers should be separated by points or gaps (example: 29.300.00 or 29 300 000)
- Symbols and technical units are in italics
- Leave a gap between numbers and units (example: 3 cm, 21 °C, 14 %)
- For combined units, use exponents; multiplication sign is not needed (example: m³ ha⁻¹ =cubic meter per hectare; kg ha⁻¹ a⁻¹ =Kilogram per hectare and year)
- Numbers from 2 upwards can be written as digits

Citation techniques

- Be consistent always use the same style in your text references and bibliographic references
- Don't copy ready-made references

The German citation system recognizes four different kinds of citation:

Paraphrasing/ indirect quotation

- Most common quotation where the foreign text is translated into your own words (paraphrased)
- Maintain technical terms

Verbatim quotation

- Only for exceptional cases when the exact wording is needed
- Beginning and end of the citation are marked with quotation marks
- When something from the original text is left out, it is marked with square brackets (example: [...]). Words added for better

understanding are put in square brackets (example: [is])

Reference

- Is used to refer to other sources that treat a similar subject or to secondary literature
- The reference is marked with "cf." (example: cf. Röhring et al. (2006))

Citation within quotation

- Is used in exceptional cases when you can't find the source, but only a secondary source that cited the text itself
- Cited as follows: Watt (1919, according to Ellenberg and Leuschner 2010, p. 119)

Quotations have to be sourced properly within the text, with the name of the author and the year of publication (Name-Date-System). Both details in round brackets.

Some authors (Spurr and Barnes, 1985, Ellenberg et al. 1986, Ellenberg 1996) pointed out that ...

If the author appears in the text, only the year of publication has to be in round brackets.

Kimmins (1997) showed that ...

For publications written by more than one author, only the first one appears in the citation, followed by et al. (all authors have to be listed in the bibliography).

Collet et al. (2001) showed ...

In the case that various authors are cited in the same passage, the authors are arranged in chronological order. For citations of different publications from one author with the same year of publication, the quotation is marked with a suffix (a,b, etc.).

Smith (1979a, b) proved that ...

There are several reference management software programs, many of which are free (e.g. zotero, JabRef, Bibsonomy, Docear, Mendeley). At the Georg-August University, you have the possibility to use the Citavi campus license. You can get more information and attend courses about the use of Citavi at the SUB Göttingen: https://www.sub.uni-goettingen.de/en/learningteaching/academic-work-tools-andmethods/reference-management/

Plagiarism

Plagiarism is the imitation of foreign intellectual work that you claim to be your own. All texts and thoughts (even oral notifications) literally cited from others have to be marked as such (author/s, year and page number). The same applies for literally translated foreign texts. Diagrams or tables used from other authors and even own text passages already used in other publications have to be cited as well. If plagiarism is found in a thesis, it will be counted as "not passed". Plagiarism is an element of an offence in Germany! Make sure to cite correctly.

Tables

Example table

• Tables should be understandable without reading the text

- Title: every table should have a title with a short description of the content and- if adopted from another author- the source. The title begins with the consequent number of the table
- Abbreviations used in the table have to be explained either in the title or in a footnote
- Head (upper row of the table): description of the content of every column with units (in round brackets)
- Design should be as discreet as possible (only use lines where they are really necessary)
- Lines above and below the table head and below the last line are usually sufficient

Tab. 5. Strahlung (Diffuse Site Factor, gemessen in 1,5 m über dem Boden im Bestand in % des Freilandwertes) im Sommer 1995 und 2003

Hiebsform	Diffuse Site Factor 1995 (% vom Freiland)		Diffuse Site Factor 2003 (% vom Freiland)	
	Mittelwert (Extreme)	Standardabweichung	Mittelwert (Extreme)	Standard- abweichung
Lichtungsschlag (n = 48)	66,8 (35,8 - 89,1)	± 18,5	n. b.	n. b.
Gruppenschirmschlag (n = 42)	34,5 (5,1 - 50,4)	± 11,4	25,3 (7,5 - 36,6)	± 6,9
Femelschlag (n = 63)	26,3 (4,6 - 43,3)	± 11,5	23,4 (7,4 - 39,4)	± 8,7

n = Anzahl Messungen

n. b.= nicht bestimmt

Images (photos, line drawings, diagrams)

Images are generally eye-catchers and the reader often looks at them first. They should be clear and understandable without explanation.

- Colours should only be used if necessary for the content
- Avoid decorations like shadows, frames, etc.

- The axis should always indicate numbers and units
- For several diagrams of the same kind, use the same unit size
- The **image caption** appears below the image, with the image number, a short description of the image and if necessary, the source

- Abreviations, markings and lines used in the image have to be explained in a legend
- The image has to be linked with the text. Within the text, the reference to the image is labeled with the number of the image
- The results presented in tables or images have to be explained within the chapter results. A table or image should not be included if it is not explained in the text!

Example diagram



Abb. 3. Spezifische Blatt-Nadelfläche (SLA, cm² g⁻¹) (A), Blatt-Nadelflächenverhältnis (LAR, cm² g⁻¹) (B), Verhältnis der Blatt-Nadelfläche je Einheit Kronenprojektionsfläche (LAI, cm² cm⁻²) (C) und Verhältnis der Blatt-Nadelfläche je Einheit gesamter Stützgewebelänge (Längen aller Äste und des Stammes) (ELD, cm² cm⁻¹) (D). Dargestellt sind Mittelwerte mit 95 %-Konfidenzintervallen. ZN = Zielstärkennutzung Neuhaus, ZO = Zielstärkennutzung Otterbach, SN = Saumschlag Neuhaus, KN = Kahlschlag Neuhaus, KO = Kahlschlag Otterbach.

Specific leaf area (SLA, cm² g⁻¹) (A), leaf area ratio (LAR, cm² g⁻¹) (B), leaf area index (LAI, cm² cm⁻²) (C), and efficiency of leaf display as ratio of total leaf area per unit length of total supporting tissue (branches and stem) (ELD, cm² cm⁻¹) (D). Depicted are mean values with 95% confidence intervals. ZN = target diameter cutting Neuhaus, ZO = target diameter cutting Otterbach, SN = strip cutting Neuhaus, KN = clear cutting Neuhaus, KO = clear cutting Otterbach.

Submission

- To register your thesis, fill out the form "Allocation of a master's thesis" with your supervisors: <u>www.uni-goettingen.de/en/allocation+of+a+master%27s+thesis/83786.html</u>
- Submit the signed and filled out form to: Mrs. Selma Koç Tel.: +49 551 / 39-33405 E-Mail: skoc@gwdg.de Room 1.128, Büsgenweg 5, 1st floor
- A **supervisor** may come from another faculty, from another university, or from abroad, but at least one supervisor must be from the Faculty of Forest Sciences.
- Please note that **external supervisors need to be aproved** by the dean of studies Prof. Achim Dohrenbusch. For the application please contact Sabine Stachowiak <u>sstacho@gwdg.de</u>
- If one of the supervisors is not from the faculty, please communicate the address, telephone number and E-mail address of the supervisor to Ms. Selma Koç <u>skoc@gwdg.de</u>
- If the thesis is in English, a German abstract and the translation of the title into German are needed (and vice-versa).
- Submit your thesis via FlexNow (see video).
- Hand in one paper copy to Mrs. Selma Koç, Büsgenweg 5, room n° 1.128
- Only glue-bound hard copies are accepted.
- You can have your thesis printed and bound in almost any copy shop in Göttingen. Just google"copy shop Göttingen" to find some offers. Ask how long it will take to have your copy ready to make sure you meet the deadline.
- The cover should be white. Don't print the title on the cover.
- Don't forget to sign your thesis! Use the 'statement of authorship' document generated by FlexNow under 'summary of achievements'
- If the submission date is a weekend or a public holiday, you have to hand the thesis in by mail. The postmark counts as the submission date (not the day the thesis arrives at the faculty), but it is better to hand in the thesis in advance.
- SUFONAMA Students have to submit a soft copy (pdf on a CD) with their thesis

N.Bartsch [®]2011, E. Wörner, 2019