

PRACTICAL GUIDANCE AND TIPS FOR WRITING YOUR MASTER'S THESIS



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TABLE OF CONTENTS

1.	INTRODUCTION	ուկե	. 6	
	How to use these guidelines		. 6	
2.	How to use these guidelines THESIS PREPARATIONS		.)7	1hh
	Choosing a topic		.7	
	I hesis title	 	. 7	
	Finding supervisors		. 8	
	Organizations as supervisors	 	. 8	
	Group work		. 9	
	Finding funding		. 9	
	Reviewing literature: preliminary reading		10	Q1Q
	Empirical or literature based thesis			010
	Referencing software			
	Back-up option			
	Writing a proposal			
	Drafting an outline			
	Work schedule			
	Time required			
	Methodology guidance			
	Registering			
	Extensions			
	Withdrawing			
	Other regulations to consider			
3.	THE THESIS OUTLINE			
-	HE FRONT MATTER			
	Pagination			
	Cover page			
	Statutory declaration			
	Acknowledgments			
	Abstract			
	Table of contents			
	List of abbreviations and/or acronyms			
	List of symbols			
	List of tables and/or figures			
-	VPIRICALLY BASED THESIS			
	Introduction			
	Literature review			
	Materials and methods			
	Results			
	Discussion			
	Conclusion			
	Concluding thoughts			
LI	TERATURE BASED THESIS			
	Overview			
	Introduction			
	Methodology			
	Background	 	27	

	Main body: results and discussion	
	Conclusion (and concluding thoughts)	
Tŀ	HE BACK MATTER	
	Reference list	
	Referencing styles	28
	Appendix	28
4.	RESEARCHING AND WRITING	
S	DURCING MATERIALS	
	What are academic sources?	30
	Primary and secondary sources	
	Finding sources: online	
	Guidance for online research	
	Finding sources: offline	
	Additional tips	
	ETTING IT DOWN ON PAPER	
RI	EVISING, EDITING AND PROOFREADING	
	Revising	
	Editing	
	Proofreading	
	ANDING IN A DRAFT AND ASKING FOR FEEDBACK	
	FORMATTING, REFERENCING AND OTHER ISSUES	
LA	NYOUT	
	General layout	
	Line spacing	
	Text alignment	
	Pagination	
	Headings	
	Chapter title headers	
FC	DRMATTING	
	Font type, size and style	
	Paragraphs	
	Tables and figures	
	Tables	42
	Figures	
	Footnotes and endnotes	
	Abbreviations and acronyms	
	Lists	
LA	NGUAGE BASED ISSUES	
	Capitalization	43
	Special characters	
	Tenses	44
	Active versus passive voice	
N	JMBER BASED ISSUES	
	Quantities and units	
	Mathematical equations	
	TING SOURCES AND REFERENCING	
PI	AGIARISM	
	What is plagiarism?	
	What isn't plagiarism?	
	In-text citations	4/

F	INAL THESIS CHECKLIST	
6.	MATTERS OF THE MIND	49
Ν	AYS TO IMPROVE CONCENTRATION	49
	Preparations	49
	During studying	50
Н	OW TO AVOID PROCRASTINATION	50
	Reasons (and strategies) for procrastination	50
	General helpful strategies	52
F	INDING TIME TO RELAX	
D	EALING WITH STRESS	52
	What to do in those "losing it" moments	53
IF	TIT ALL GETS TOO MUCH	
G	ENERAL HELPFUL HABITS	54
7.	HANDING IN	55
	Copies required	
	Binding	
	Where to go	
	Grading timeframe	
8.	THE DEFENSE	
	Timeline	56
	Absences	
	Your audience	
	Time allotted	
	Presentation slides	
	The contents	
	Presentation practicing tips	
	What to wear.	
	Pre-presentation and presentation nerves	
	Question period	
	Grading	
9.	AND FINALLY	
	Should you fail	
	Certificate and transcript	
	Graduation ceremony	
	Exmatriculation	
10.	OTHER THESIS GUIDELINES, MODULES AND WORKSHOPS	61
	Thesis guidelines	
	Modules	
	Workshops	
	Academic Writing Aid series	
11.	USEFUL CONTACTS	
	APPENDICES	
	Appendix A	
	Appendix B	
	Appendix C	

1. INTRODUCTION

 $\mathbf{181}$

These guidelines have been created to assist you with organizing, writing and completing your Master's thesis. Their primary aim is to guide you through the whole of the thesis process, from finding your topic and supervisors, to handing in the finished work and giving your defense. You'll find tips and pointers to help you overcome a multitude of hurdles, and hopefully make your Master's thesis experience a little bit easier.

Although for some the thesis is the most dreaded part of their Master's degree, it is for many the first official document to grant them researcher status, and can be their first solid step into the career of their choice. Saying that, it's also not the be-all and end-all of your researching life!

Good luck and (at least try and) enjoy!

How to use these guidelines

First of all, it's important to understand that these are only *general* guidelines: you should check with your main supervisor if there are any specific guidelines you should be following as set by their institute. Chapter 10 provides a list of additional Master's thesis guidelines provided by different Hohenheim institutes. You can also find numerous guidelines online. Plus, although these guidelines are aimed at Master's thesis students, the majority of tips could also be helpful for Bachelor's students.

Second of all, you'll probably gain most from these guidelines if you read through all the chapters before starting to write. However, you can, of course, gain from them at any stage, especially if you have a particular issue you need help with.

2. THESIS PREPARATIONS

This chapter is focused on what you should consider before you start to write, from choosing that all important topic to finding funding.

■ Choosing a topic

First of all, you'll need to decide on a thesis topic. Below are a few questions to bear in mind when making this decision:

- Have you taken at least one module with the institute with which you want to carry out your research? (You must have taken at least one module!)
- Are you interested in the topic? Is it relevant to any future career plans you might have?
- Can you complete the research and write-up in at least six months? Is it feasible (especially if something goes wrong...)?
- ► Do you have the appropriate skills and resources (or could you get them)?

Most Hohenheim institutions advertise thesis topics on boards by their department office. It's also possible to find lists online on department homepages. If you know which institute you want to work with, it's definitely worth contacting a relevant professor.

You can also come up with your own thesis topic. Look at past theses for inspiration. These can be found on department homepages and also as hardcopies in the institute libraries. If you do decide to create your own thesis subject, you should bear a few additional questions in mind:

- Is your idea novel in some way? Are you asking a new question, looking for a different outcome to a known problem, or trying out an original methodology?
- Does it have universal appeal? What relevance does the topic have on a larger scale?
- Does your topic fit within the interests of a particular department/supervisor?

If you're still struggling to find a topic you'd like to research, it might be worth trying the following:

- ► Look up recent events that have been in the news in regard to your field.
- Check out the websites of organizations in your area of interest.
- ► Flick through past slides of modules that intrigued you.
- ► Read recent journal articles to get an idea of what's currently being researched in your field.

It's recommended that you start looking for a thesis topic during your third semester. However, don't stress if you don't have the time: you have until the seventh semester to register a topic.

Thesis title

Make sure that your thesis title projects what your research will be tackling. A short title is always advisable, but it's better to make it longer if necessary to clearly define your topic area. Being able to formulate your subject into a question or a statement is

also a test of how specific your thesis topic is: if you can't do this, maybe your topic is too broad.

Bear in mind that **the title you register with will be the title you need to use for your submitted thesis.** If you want to change it later on, you'll have to go through a bureaucratic rigmarole involving the examination office, so it's highly advisable to be completely happy with your title before you register it.

■ Finding supervisors

Usually, you'll have one main supervisor – your **first supervisor** – who's directly connected in some way to your thesis topic. They must also be a professor at the University of Hohenheim. Therefore, ask around your faculty of interest in order to find someone suitable and willing.

In general, your first supervisor will:

- ► sign your registration form (dealt with in more detail below)
- ▶ meet you for an introductory discussion on your thesis topic
- assist you with your main outline and a working plan (dealt with in more detail below)
- ► grade your thesis
- ► attend and grade your defense

Some supervisors will also:

- ask you for a thesis proposal before you begin writing (dealt with in more detail below)
- arrange further meetings to discuss your thesis
- look through a draft of your thesis before you submit it

You'll also need to find a **second supervisor.** Your first supervisor can advise you regarding a professor who'd be suitable. This second supervisor will have some interest in what you're planning to research, but might not be as closely affiliated with the subject as your first supervisor. In this respect, they're considered more as "waiting in the wings" for your thesis defense, as opposed to seriously assisting you with the research and written part. However, that's not to say that they won't guide you if you have any specific questions.

Unlike your first supervisor, your second supervisor doesn't have to be a Hohenheim professor: they can be an external expert, for instance, from a particular company or organization (discussed further below). Although you can register your second supervisor as late as when you hand in your thesis, it's worth looking into this issue sooner rather than later in case you need to ask around.

Don't be afraid to nag your supervisor(s) if you need guidance at any point during the thesis process! Remember: they agreed to be your supervisor(s) and so have certain obligations regarding this role.

Organizations as supervisors

Working with an organization – which includes, in this context, corporations, companies, NGOs, government institutions, etc. – is particularly advantageous if you're looking for practical experience. (And, of course, there's the slightest

possibility that you could obtain a position of some sort after finishing your studies). You can find such offers on Master's thesis boards around the university, as well as on the websites of relevant organizations. Be aware that, if your thesis topic is chosen by an external person, it must be approved by the examination committee first, and selected in cooperation with a Hohenheim supervisor.

Also bear in mind that you may have to abide by additional regulations laid out by the organization, as well as those given by the university, and that your research boundaries will undoubtedly be more restricted. This also applies for organizations that supply funding (dealt with in more detail below).

Group work

It's possible to register your thesis as part of a group work. However, this is only possible if: (a) you're clearly able to show what your individual contribution was; and (b) your contribution can be assessed. For instance, you must be able to mark the sections that you completed.

Once finished, each member of the group needs to apply and submit the thesis individually. That is, each student should submit two bound copies and an electronic version of the final thesis.

■ Finding funding

Finding funding is particularly important if you're planning on conducting your research abroad. Below are two of the main funding organizations you could consider. For more information on funding, have a look on the university website for updates and check with your institute or organization of interest, as well as searching online.

► Fiat Panis-Foundation

This is for students who are interested in a topic that focuses on hunger and poverty reduction in developing countries. Other requirements include:

- you need a grade of 2.5 or above
- you must conduct your research abroad
- you need to have a supervisor in place

► GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit)

This is for students interested in development oriented research. The organization is specifically interested in research assignments that will lead to the completion of a thesis (usually Master's level). Other requirements include:

- you must have completed at least five semesters of a course in agricultural sciences or another development related degree course
- you need to be enrolled at a German university
- you must have a good command of English (and possibly a second language)
- you must be able to demonstrate your interest in development oriented research
- you need to have a supervisor in place

■ Reviewing literature: preliminary reading

Reviewing literature on your chosen topic is important in regard to ascertaining what has already been discovered about it, its theoretical background, and what methodologies have been used to investigate it. It'll also give you guidance in terms of academic writing styles, and an understanding of scientific publications. Most importantly, preliminary reading will assist you with drafting an outline for your thesis.

However, be careful not to let this reading and reviewing stage get out of hand: you need time to carry out your *own* research! Usually, when you notice ideas repeating in the literature you're reading, you've read enough.

Keep a record of any important literature as you'll probably use this within your literature review. For instance, bookmark useful websites, print out relevant journal articles you find online, and/or scan or photocopy interesting book chapters or passages.

Chapter 3 of these guidelines covers how to search for academic materials if you need further assistance with this.

Empirical or literature based thesis

There are two main categories of thesis: (a) an empirical study based on primary data that you collect personally and (b) a study based on secondary data that you analyze in a certain way. One is not easier or superior to the other, and both have their strengths and weaknesses. Which you choose will be dictated by what it is you want to research and what your main objectives are, as well as your own preferences.

These guidelines will discuss both types of thesis in more depth in Chapter 2.

■ Referencing software

Before you even think about starting to write, sort out your referencing software first: this will save you *a lot* of time in the long run. This software will save your sources, assist you with citations, and create a final reference list. Below are three of the main software options to choose from.

- Citavi: <u>https://www.citavi.com/</u>
 - Free to use: Baden-Württemberg license agreement (through the University of Hohenheim)
 - Requires downloading
 - Searches resources worldwide
 - Manages references
 - Analyzes and highlights texts
 - Saves ideas and structures your work
 - KIM training courses: <u>https://kim.uni-hohenheim.de/96226?L=1</u>
 - KIM support online: <u>https://kim.uni-hohenheim.de/94980?L=1</u>
- Refworks: <u>https://www.refworks.com/</u>
 - Free to use: campus-wide license
 - No downloading required: Internet-based

- Organizes and creates a personal database online
- Formats bibliographies and manuscripts
- Imports references from a variety of databases
- KIM training courses: <u>https://kim.uni-hohenheim.de/96226?L=1</u>
- KIM support online: <u>https://kim.uni-hohenheim.de/94979?L=1</u>
- Mendeley: <u>https://www.mendeley.com/</u>
 - Free to use
 - Need to create an account
 - Requires downloading
 - Securely stores data and accessible across devices
 - Use online or offline
 - Publicly or privately shares reading lists, references or full-text articles
 - Creates groups

Back-up option

Another important component to consider is how you're going to back-up your thesis, i.e., **don't only save all your hard work on your laptop.** You may already have an external drive. If not, there are many free options online to choose from, including Google Drive and Dropbox. At the very least, email it to yourself after each day of writing.

■ Writing a proposal

You *might* be asked to compose a research proposal before you begin writing your thesis (although, they're associated more with PhDs). Writing a proposal can help you to consolidate your ideas and get a better grip on what it is you're going to be researching. Your proposal isn't set in stone, but if you find that your focus does take a u-turn when you begin your actual research, you should discuss this with your supervisor(s).

A proposal demonstrates that you've thought through your research questions, been able to locate your main sources of data, and have seriously considered your methods and materials. Overall, you should include:

- ► A working **thesis title:** even if you change this later, it'll help you to keep focused.
- An introduction to your topic that will include:
 - a brief description and background to your topic
 - the aim of your research and what you want to achieve
 - the objectives of your research in which you outline the issues you'll need to address in order to achieve your aims
 - the research questions
- ► A preliminary **literature review:** include literature that justifies your research objectives and highlights the knowledge gap you're aiming to fill.
- A detailed research methodology: discuss what methods you intend to use in order to answer your research questions and justify why you've decided to use these methods over others.

► A research timetable: provide an overall timetable, detailing the timeframe in which you intend to tackle your thesis, and your proposed deadline (this might not be necessary in all cases, but there's a higher chance that it'll be asked for if you're undertaking your thesis with an organization or company).

■ Drafting an outline

Before you start writing, you should prepare an overall thesis outline. Most of the time, your first supervisor will assist you with this. You can view it as a rough table of contents in which you specify your main sections and sub-sections, but, additionally, you should also provide bullet point descriptions of what you intend to include in each section. You should at least include an introduction, a main body, and a conclusion. Your first supervisor can then review it, providing you with an idea of what you should and shouldn't include: it's far less painful to figure this out at the start than waste time writing sections that you later find aren't necessary.

Remember that your thesis outline is not unchangeable: it's not supposed to restrict you. Instead, it's meant to be a guide so that you don't get lost and lose focus.

■ Work schedule

Some students find it useful to create a work schedule to keep them on track. With a work schedule, you can break your thesis down into different work stages. However, only include the major steps and milestones so as not to overcomplicate your time table and help to keep it more realistic. Below is an example of what such a timetable might look like.

Step/milestone	Time (week)											
achieved	2	4	6	8	10	12	14	16	18	20	22	24
Literature research												
Understanding methodology												
Data obtained												
Data evaluated												
Draft completed												
Editing and proofreading												

Remember: as with your outline, if you create a work schedule, it's not set in stone. If you find yourself running behind, prioritize the remaining steps, or shorten the time allocated to certain parts. Keep a time buffer of around 25%: some steps will undoubtedly take longer than you imagine, and, more likely than not, you'll have to deal with a number of unexpected hurdles along the way.

■ Time required

Following on from creating a time table, it's worth pointing out that writing a thesis will most probably take longer than you imagine it will. It's not just the researching and writing, but also the organizing, revising and editing. As you attempt to arrange and rearrange your work, you (and your supervisor(s)) will find weaknesses, ambiguities and shortcomings. It'll take time to amend these in order to create a polished piece of work. If English isn't your native language, you may need a few more revisions to make sure that you're getting what you want to say across clearly. And don't forget to factor in the time it'll take for your supervisor(s) to review and return a draft, or get back to you regarding any queries you may have.

Methodology guidance

If this is the first time you've attempted a particular methodology, make sure that you get the appropriate training and/or guidance. For instance, ask your supervisor(s) if they know of any PhD students who could assist you.

Registering

As already mentioned, your first supervisor will sign your registration form. In essence, this is a contract you make with the examination office. This can be found in Appendix A. You need to provide at least the working title of your thesis, your first supervisor, and a start date.

You can also pick up the relevant form from the Student Information Center (Studieninformationszentrum (SIZ)) where, additionally, you need to hand it in once completed. The latest you can register is in the **seventh semester**. If you've completed all your modules, you'll have **three months after your last grade is announced** to register. If you haven't registered by the deadline in question, you'll be exmatriculated and receive a fail for your overall final grade.

After you've registered, you'll have **six months** to complete and hand in your thesis (so bear this in mind!) Although – in particular instances – you can apply for an extension (as explained in full below).

As mentioned before, when you register it's not necessary to already have your second supervisor. The latest date you can supply this is on the day you hand in your completed thesis.

Extensions

In certain circumstances, it's possible to apply for an extension. However, this is only given in *exceptional* cases. It could be that a piece of equipment malfunctioned or an important instrument broke. You'll need to formally apply to the examination board, providing good reasons and backing from at least your first supervisor. They must confirm that:

- ► the delay isn't your fault
- the duration requested for the extension is in line with the delay

The maximum possible extension is **three months.** The latest point in time that you can apply for such an extension is **two weeks before your deadline.**

It might be that you need to request an extension for personal reasons, for example, a death in the family. In this case, you'll need to prove the reason however possible and as soon as it occurs. If it's due to health reasons, your doctor needs to complete a medical certificate, which you'll find in Appendix B. You should sort this out and submit it as soon as you can.

Either way, all materials for your extension request should be submitted to the SIZ. If you miss your deadline and haven't provided a valid excuse plus proof, you'll receive a fail and have to write another thesis.

Withdrawing

It's also possible to withdraw from a chosen topic after you've registered, as long as you have a valid reason for doing so. However, you're only able to this **once**, and you need to do it within the **first two months of registering.** You'll also need to register a new topic within the same timeframe (so, at the latest in the seventh semester).

■ Other regulations to consider

Here are a few extra points to bear in mind:

► Word count/page length

There's no official word count or page length provided by the university. This will depend on the institute with which you write your thesis, so make sure to raise this issue with your supervisor(s) if you're unsure. However, the generally suggested length is from **50 to 80 pages** (not including the reference list and any appendices).

► Language

If you've undertaken your Master's degree in English, then you'll be expected to write your thesis in English. However, in exceptional cases, and with a formal request on your part that is agreed upon by your supervisor(s), it's possible for you to write your thesis in another language. This must be authorized by the examination committee first.

► Credits

Your Master thesis is worth **30 ECTS.**

► Grading

Your Master's thesis is composed of two parts, each of which is worth a different percentage of your final grade:

- written part (the actual thesis): **75%**
- oral part (the defense): 25%

3. THE THESIS OUTLINE

1818

This chapter will provide an overview of what you'll need to include in your thesis. It'll start by looking at the general front matter, then it'll focus on the empirically based thesis, followed by the literature based thesis, and finish with the general back matter.

THE FRONT MATTER

The front matter includes all the elements that are found before the introduction:

- ► cover page
- statutory obligation (although this can also go at the end)
- ► acknowledgments (as can this)
- abstract
- ► table of contents
- ► list of abbreviations and/or acronyms
- ► list of symbols
- list of tables
- ► list of figures

Pagination

The page numbering of the front matter of your thesis is different to that of your chapters. Firstly, you should use Roman numerals (i.e., i, ii, ii, etc.). (The rest of your thesis is paginated using Arabic numerals (1, 2, 3, etc.)). Secondly, *all* the pages are counted, but the page number should not be printed on your cover page.

For an overview of page numbering, check out Chapter 5.

■ Cover page

You can make your cover page as fancy or as plain as you wish, but there's certain information it should contain:

- ▶ the title of your thesis (the one you registered with)
- ▶ your name (as it appears on your academic records, i.e., no nicknames)
- ▶ at least your first supervisor's name (you can also include your second supervisor's name, as you see fit)
- ▶ the name of the institute in which you carried out your thesis
- ► the name of your Master's program
- the date you handed in your thesis (at least the month and year)
- that the work is a Master's thesis
- ► the name of the university
- ► the name of any funder(s)
- ▶ the name of any other organization(s) that assisted you

You can include emblems, for example, of the University of Hohenheim and/or of any funding or assisting organizations (it might be worth double checking with the latter, however).

Statutory declaration

This declaration is *very* important: without it – signed – your thesis won't be accepted by the examination office (even if otherwise complete). The declaration provided by the examination office can be found in Appendix C. If you decide to create your own, just make sure that you incorporate all the information present on this form:

- that you completed the thesis independently and solely using the sources present in your reference list or bibliography
- ► that you haven't submitted your thesis elsewhere
- that you've submitted an unencrypted electronic version of your work which is exactly the same as your hard copies, and that you recognize that this can be checked for plagiarism

Don't forget to include the names of *both* your supervisors, and to *sign it*. This document is *legally binding:* a false declaration will render your Master's title null and void.

Acknowledgments

If you choose to include acknowledgments, these are usually next in line (although you can also place them at the end of your thesis). This part isn't graded, but it gives you a chance to thank anyone/thing that helped you to complete your thesis. There are no hard and fast rules to writing your acknowledgments, but, in general, you thank those who helped you in an academic and/or professional capacity first, so this includes your supervisors, funders and supporting organizations, and then those who helped you on a personal or emotional level, for example, your family, friends, pets, house plants, etc.

It can be difficult to think of different ways to say "thank you", so here are a few ideas to help you along:

- ► Many thanks go to ...
- ▶ I would like to thank...
- ► I would like to offer my sincerest gratitude to...
- I would like to express my deepest gratitude to...
- ▶ Much appreciation goes to ...

Abstract

Although the abstract is a piece of academic writing, it goes *before* your contents page. This will probably be the shortest section of your thesis (apart from, perhaps, your acknowledgments), but don't be fooled by its small word count: many people actually find this the hardest part to write because you have to summarize your *whole* thesis in **no more than a page.** In this respect, it's advisable to leave this part until the bitter end because, by this point, you'll know what your thesis consists of as a completed piece of work.

Your abstract should be a standalone text that consists of all the major elements of your thesis chapters. Therefore, make sure you include the following components:

- the context and background of your topic
- your aims and objectives

- ► your methodology
- your key results and central findings
- the main interpretations and conclusions you arrived at
- ► any principal recommendations and future research

On the other hand, your abstract should *not* include any of these elements:

- citations
- abbreviations and terms that could confuse your reader (keep them to a minimum)
- ▶ figures or tables (or any reference to figures or tables)
- ► incomplete sentences
- ► a lot of background information

Your abstract should consist *only* of text, and should be written in the *past tense* (apart from when discussing possible future research). If you're still unsure about how to format your abstract, it's advisable to have a look at previous theses.

If you want, you can finish your abstract by including **keywords.** Choose no more than five, and pick words that sum up your topic as comprehensively as possible. Simply leave a sentence wide gap after your abstract and introduce your keywords by writing "Keywords" followed by a colon, i.e., "Keywords:"

■ Table of contents

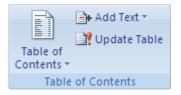
Your table of contents (or simply "contents") should include *all* the headings and subheadings of your thesis, as well as your references and any appendices, and the page numbers on which they can be located (tables and figures are listed separately as discussed later). *Do not* include any sections featured *before* the table of contents, i.e., the title page, declaration, abstract and acknowledgements. And definitely don't include the table of contents itself!

With Microsoft Word (as with, no doubt, other office software) you can create a contents page automatically by allocating heading levels to each of your headings and sub-headings. This option is found in the **Home** tab. The image below is taken from Microsoft Word 2010.



The heading styles are set by Microsoft Word, but you can easily modify them to suit your own tastes.

To create your table, start a new page then click on **Table of Contents**, which can be found in the **References** tab.



A useful feature is that you can update your table of contents as you add new headings and sub-headings by clicking on **Update Table**, which can also be found in the **References** tab (shown above).

Your table of contents should be single spaced and each entry should align with its page number (usually separated by periods), e.g.,

Introduction.....1

Once you've finished your thesis, make sure that all headings and sub-headings in your table of contents correspond with the main text.

■ List of abbreviations and/or acronyms

First of all: what's the difference between abbreviations and acronyms?

- An abbreviation is formed by shortening a word, e.g., Mr. instead of Mister, or cm instead of centimeter.
- An acronym is formed by using the first letters of a name or phrase, e.g., UN instead of United Nations, or NATO instead of North Atlantic Treaty Organization.

There's no need to list *all* abbreviations – some are so common that they're essentially recognized by everyone. But, make sure you double check first which these are if you're unsure. (Although, obvious ones include: etc., e.g., i.e., cm, mm, m).

It's a similar case with acronyms. For commonly known acronyms, there's also no need to list them, examples being US/USA, UK, AIDS, IQ, etc. In fact, nowadays, some names and organizations are only really recognized in their shortened format!

If you use both abbreviations and acronyms, you don't need to create separate lists: you can put *all* the abbreviations and acronyms you used into one list and call it "List of abbreviations". Create a table of two columns: the left hand column should include the abbreviation/acronym, and the right hand column should contain the relevant spelt out version.

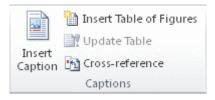
More on abbreviations and acronyms is provided in Chapter 4 of these guidelines.

■ List of symbols

You'll also need to list any symbols you use. This will be particularly relevant if you deal with the natural sciences. Again, some symbols don't need to be listed as they are commonly known (double check if you're unsure). For the rest, you should include them in a two columned table: on the left hand side you should put the symbol, and on the right hand side you should put the definition.

■ List of tables and/or figures

Lastly, you'll need to list any tables you include in your thesis and, *separately,* any figures you use. As with the table of contents, you can use your office software to automatically create these lists. For Microsoft Word 2010, in the **References** tab you'll find **Insert Caption**.



Here, you can type in the name of your table or figure, and select the label, i.e., "table" or "figure". As with the table of contents, you can then insert your list of tables and/or figures on a blank page, and update this list as you add more tables and/or figures. You should then end up with a table/figure list that includes the number of the table/figure, its caption, and the page on which it can be found, e.g.,

Figure 1. The effect of temperature on the rate of photosynthesis......4

More information on tables and figures is provided in Chapter 4 of these guidelines.

EMPIRICALLY BASED THESIS

What is meant by an empirically based – or research based – thesis is one that is founded on data you collected first hand. It also includes **case study research** in which you connect your primary research with a particular case study or studies.

There are numerous advantages to collecting such data:

- ▶ you can design your research to fit your needs
- ▶ you can look for data that specifically addresses your objectives
- you know exactly how your data was collected
- ▶ it's up-to-date data

There are also a number of disadvantages to this research:

- ► it's more costly
- ▶ it tends to be more time consuming
- ▶ it's based on a limited number of repetitions, subjects, interviews, etc.

Introduction

The main sections of your introduction should be as follows:

Background of the problem

Here, you should provide your reader with the **general background** of your research. Start broad and then become more specific. For example, if your thesis is on food insecurity in Rajasthan, India, start by discussing food insecurity on a global scale, then move to the situation in India, and, finally, end with the circumstances in the district of Rajasthan.

Problem statement

The background of your research should lead into your problem statement: what's the specific issue that your thesis will focus on? What's the **knowledge gap** you're trying to fill?

Significance of the study

This is where you **justify** why you're carrying out this research. It should tie in with your problem statement. Why is it important to fill this particular knowledge gap? You should explain how your research will contribute to the broader body of knowledge already known about your topic. Maybe it will assist food security policy-makers in Vietnam, add in some way to genetics research, or help advance Brazil's economic system.

Research objectives

Your research objectives provide a summary of what you're going to achieve through your research. They should be closely related to your problem statement. You'll usually have up to five objectives written as short statements. Through these you should demonstrate what you plan to do in your study, and how and why you're going to do it. Well thought-out research objectives will also help you to stay focused, and assist you with your methodology and data collection, analysis and interpretation. Again, you should present these as bullet points.

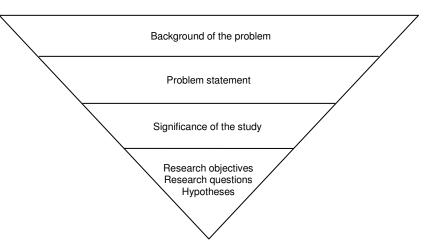
Research questions

These questions will provide the foundation of your data collection. In general, you'll have more than one, and these should help to direct your focus. They should align with your research objectives, and, as their name suggests, should be written out as questions. The main aim of your thesis will be to answer these questions. Again, for clarity, it can help to present each as a bullet point.

Hypotheses

A hypothesis is a prediction you're planning to test. It's written as a declaration with an expected result, e.g., "If the rate of photosynthesis is related to temperature, then exposing a plant to different temperatures will affect the amount of oxygen it produces". You may have one – a hypothesis – or one more than one – hypotheses. Again, if you have more than one hypothesis, it can help your reader if you present each as a bullet point.

One way to consider the focus of your introduction is as a cone on its tip: while discussing the overall background of your problem, your focus is wide. Then, as you move into your research questions, research objectives and hypotheses, your focus becomes narrower.



The last section you should include in your introduction is the **overall layout of your thesis.** For this, you should provide a very short description of what's included in each chapter of your thesis. This will give your reader a general overview of what to expect.

■ Literature review

The main function of your literature review is to show your reader what's already known about your specific topic. It also has a number of other functions:

- ▶ it connects your research to the wider context
- ▶ you can clearly define the problem you're addressing
- ▶ it demonstrates where the knowledge gap you're investigating is, and highlights where there's a need for further research
- it functions as a comparison for your own results, showing how your findings relate to those that have previously been discovered

What a literature review is *not* is simply a collection of papers or a summary of everything you find on your topic: you need to analyze and critically discuss what you find, and clearly connect it to your research questions and objectives. Therefore, you need to be selective and only cite relevant material. Similarly, don't just list example after example. Instead, organize your sources according to issue. One way to achieve this is by splitting your research questions into the main concepts and looking for information regarding each of these. Remember: ultimately, your literature review is meant to assist you in addressing these questions.

As you plan this chapter, concentrate on these main elements:

- demonstrating where the research gaps are
- highlighting research that ties in closely to your own
- ► analyzing and contrasting the views of different researchers
- ► bringing together researchers that have similar views and findings, and pinpointing where researchers disagree or contradict
- examining and discussing the different methodologies used

Make sure that you have a logical flow to your ideas, and that you present them all comprehensively. Don't be biased with the research you include: it's important to incorporate opinions that don't concur with your own as well as those that do. By excluding them you will, in fact, make your own argument weaker. Finally, it's also advisable, where possible, to include sources that are as up-to-date as possible.

As a general overall layout, use the following:

- begin your literature review with a short introduction to and outline of the chapter;
- then, as with your introduction, view this chapter as a cone on its tip: begin broad, presenting the main concepts and overall issues, and then narrow your focus onto literature that ties in specifically with your own topic;
- ▶ and finally, end with an overall summary of the main findings.

Materials and methods

In this section, you'll need to provide a **detailed description of your experimental design.** If you're unsure of how much detail you should go into, one question to

consider while writing is: using my depiction, could somebody else now replicate my research? This means that you should include information on all the variables you measured, all the replicates you carried out, and all the treatments you used. If you modified any of the equipment, or had any made specifically for your research, you need to provide details, and even a diagram if you think this would be suitable. Don't forget to also include where your research took place, which would consist of any physical and/or biological features you deem relevant.

To summarize, make sure you cover the following points:

- ► the site characteristics
- ▶ when and for how long your research was carried out
- ▶ your sample design, size and characteristics (e.g., age, gender, etc.)
- ▶ the design of your experiment and how many replicates you carried out
- any practices you used
- descriptions of any devices and methods used, including their validity and reliability
- definitions of any concepts, terms and/or scales used
- definitions of any and all variables (starting with the dependent variable if you included one)

In this chapter, you should also state how you **collected** your data, specifying all the procedures you used along with explanations of why you chose these over others, and the supplier(s) of any equipment, organisms, cultures and/or enzymes you needed. You then should discuss how you **analyzed** the data, which would include the statistical analysis you carried out and what software you used.

You need to be detailed, but you should also do so within reason, for instance, you don't have to record exactly *who* logged what particular piece of data. Be succinct *and* provide a complete overview of what you did.

Remember to only focus on your materials and methods: you don't want to provide any form of analysis or your results in this section. In this respect, only describe:

- ► how you approached the problem
- what materials and equipment you used
- ► the methods and analysis you carried out

Here are a few additional points to bear in mind while writing up this part of your thesis:

- ▶ Write in the third person. This means using the passive voice, or, in other words, avoiding "you", "I", "me", etc. So, for instance, instead of writing "I took samples every 30 minutes", write "Samples were taken every 30 minutes".
- ▶ If you used a particular procedure but describing it would take up a lot of space, you can choose to refer to the paper in which it was published instead.
- All measurements should be quantified and in metric.
- ► All measurement errors should be included.
- ► Include dates and times when relevant.
- ► Use the name of the variable or treatment as opposed to a general term or number. For instance, use "healthy chickens" rather than "group 2".
- If you used any statistical methods, you'll need to provide a description or literature citation unless the test is well-known.

In this section, you'll also need to describe and discuss any **ethical requirements** you needed to comply with during your research. These will apply when you use

human or non-human participants in your research. You should discuss this with your supervisor(s) if you're unsure of whether there are any specific guidelines you need to follow.

Results

In your results section, you'll provide a summary of your findings. Remember to always keep your research questions and hypotheses in mind: you may have uncovered a plethora of discoveries, but your main focus must remain on what you actually set out to find. *Relevance* is key.

You'll want to include the measurements you recorded and what you observed. You should also provide an outline of any scales you used, including the mean and standard deviation, as well as the statistics you applied in order to test your hypotheses.

A concise and straightforward way in which to showcase your results is by using tables and figures, as well as text. Tables and figures are particularly good at providing an overview; while with text, you can focus your reader's attention on a particular aspect of your results, as well as providing more detail and interpretation. The best option is to use all of them, this way you can summarize your results and then highlight important elements or any trends. More guidance on tables and figures is provided in Chapter 4 of these guidelines.

A checklist of findings you should include in this section is outlined below:

- ▶ results you found that answer your research questions
- any relevant trends and patterns
- statistical analysis results
- results that relate to those you discussed in your literature review
- ► any significant negative or inconclusive findings

Decide how you want to present your results, bearing your reader in mind. For instance, you could relay them chronologically, by a particular method, or following the order of your research questions or hypotheses. You should also decide if you want to begin with a detailed account or start broad and then become more detailed. Using sub-headings can help with organizing your results and providing clarity for your reader.

You probably won't want to include *all* your primary results. However, if somehow important, you can provide them as an appendix (dealt with at the end of this chapter).

Based on your findings, consider the following questions before you start to write your discussion:

- ► What did you want to investigate?
- ▶ What did you and what didn't you discover?
- Did you find any other information of interest?
- ▶ What explanations can you connect to your findings?
- ► How do your findings relate to what you explored in your literature review?

It's possible to evaluate the quality and reliability of your results as you provide them. However, major limitations can be left for the conclusion. Be careful not to *interpret* or *analyze* your results in this chapter. Nevertheless, bear in mind that it's also possible to *combine* your discussion and results sections. Both approaches have advantages.

- As the two sections are so closely linked, it can be easier to provide the result and then its implication.
- However, others find it easier to focus if they sort out all their results first and figure out what they actually show before attempting to work out their implications

If you're unsure, it's always advisable to check with your supervisor(s) first.

Discussion

In this section, you'll need to analyze your results in the context of your literature review and in regard to your research questions and/or hypotheses. To achieve this, you'll need to **base your analysis on your results.** When you provide an explanation, you must use your results to back this claim. Be careful not to simply repeat your findings, however: you need to explain their significance.

The discussion chapter can be tricky: you're expected to think analytically and make claims based on your own findings. This is where your literature review comes into play: **compare and contrast** the findings you discussed in this chapter with your own – it could be that your findings agree or conflict with previous ones – and place your results within the wider context, as well as show how they add to it. Consider both sides of an argument: it'll make your case more persuasive. Discuss conflicting, as well as concurring, former results. And don't forget to also examine any unexpected findings. Furthermore, you can add to your literature review after reviewing your results, and flesh out those studies that are most relevant to your own findings.

For each result, relationship or pattern you discuss, you should include the following:

- ► the main point(s) that your finding revealed
- ► a presentation of the result(s) in question
- ► a comparison of your result(s) with any that came before
- generalizations you can make from your finding

In regard to the overall layout of this section, the main elements to incorporate are outlined below:

- ► reinstate your research questions and/or hypotheses
- discuss how your results correspond with your research questions
- examine how your findings compare and contrast to previous findings
- explain any unexpected results you encountered
- provide a summary of your main conclusions
- consider any practical and/or theoretical implications of your research

This chapter is possibly the longest in your thesis. Therefore, it's advisable to break it down into a number of sub-headings, which helps both you and your reader.

You can choose to discuss any limitations here or in the conclusion. However, in these guidelines, this section has been placed in the last chapter.

Conclusion

Essentially, your conclusion is composed of four main parts:

- your findings
- any limitations
- recommendations
- ► future research

In the first part, you should address **your findings.** Remind your reader of what your research questions and/or hypotheses were (you can easily achieve this by repeating them), and show how you answered the former and proved the latter. However, don't simply provide a summary of your discussion or repeat arguments you made before: you need to bring together – synthesize – the answers you found for your research questions, and provide your final verdicts. You also need to demonstrate how your findings contribute to the wider context, and how you've helped to fill that uncharted knowledge gap.

In the second part, you should discuss any **limitations** you faced while conducting your research. Examine any obstacles you did – and did not – overcome. Admitting to limitations doesn't demonstrate weakness. In fact, it assists in validating your results further.

In the third part you should list any **recommendations** for change you have for your field of research. Discuss any practical and/or theoretical implications of your research.

In the fourth and final part, you should discuss possible **future research.** What questions did your research bring up that could be investigated further? If you could conduct a follow-up study, what questions would you pursue that have been raised by your research?

Your conclusion shouldn't include *any* citations: you shouldn't be discussing any new ideas or introducing any additional information.

Concluding thoughts

This is an additional section. In your conclusion, you should focus completely on your research questions and/or hypotheses. However, you may have additional thoughts that you deem academically worthy of sharing. What this part is *not* is a chance for you to include a passionate how-I-would-change-the-world spiel! Your focal point should still be your main topic.

LITERATURE BASED THESIS

This part will provide the overall layout for a literature based thesis. To avoid repetition, where sections overlap with the layout of an empirically based thesis, this will be stated, and only differences will be explained in detail.

Overview

First of all, it's important to clarify what's meant here by a literature based thesis. It consists of theses in which you **explore an idea or theory** using a theoretical or philosophical approach. It also encompasses theses based on **secondary analyses**, or, in other words, based on existing primary data that was collected by another researcher or researchers. Lastly, as with an empirically based thesis, it includes **case study research** in which you connect your analysis with a case study or studies. Whichever you're conducting, it's important that you're sure you can answer all of your research questions using this type of data.

There are a number of advantages to such research:

- as the raw data collection is already complete, you can save yourself time and money
- the data you access could have been collected over many years and/or countries, and so would be composed of a multitude of variables
- the data is usually of a superior quality and higher statistical precision to that you could have collected (given your time/resources/experience, etc.)

There are also a number of disadvantages to bear in mind:

- the data might not be exactly in line with your research questions
- you might not be able to find out exactly how the data was collected
- particular departments place less worth on secondary data
- you might need to have certain statistical or methodological knowledge in order to deal with the data

Introduction

A literature based thesis follows the same outline as an empirically based thesis. However, depending on the type of research you're carrying out, **you may not require hypotheses.** Therefore, as before, you can consider the introduction as an upside down cone, starting broad with the background of the problem, then becoming more specific as you move into your research questions. And, again, include a final section in which you describe **the overall layout of your thesis.**

Methodology

This is the section in which you discuss your method. This could consist of, for instance, a particular framework or form of analysis. Clearly, this is one of the sections that differs substantially from a research based thesis. For instance, you don't use any scientific equipment, or need to interview participants. However, you should still provide a detailed account of your study design in such a way that another researcher could carry it out. You should provide details of the type of data you used, for example, newspaper reports, policy documents, legal cases, etc.

For this section, you should bear in mind the following questions:

- Firstly, why did you choose to use secondary data over primary data? Why is it the better option?
- ► How did you collect your data?
- What specific techniques did you use to analyze your data?

Why did you choose this method to analyze your data as opposed to another? What justifications can you provide for your choice of method? What are the advantages and disadvantages to the method you decided upon?

As with a research based thesis, you should also discuss **ethical considerations**: do you know how all the data you used was collected and collated? How reliable is the data you analyzed?

Background

As with the literature review of an empirically based thesis, you should provide your reader with the background and context to your topic and research questions. In this section you should also include any main concepts.

How you decide to arrange this section is up to you. However, you should base your layout on your research questions. For instance, if you need to focus on a number of complex or detailed concepts, you may want to assign each its own chapter.

■ Main body: results and discussion

Unlike a thesis based on empirical data, the main body will be split up into a series of chapters as opposed to the headings "results" and "discussion". However, these chapters should still keep tethered to your objectives and research questions. Your analysis might be based on:

- ► policy
- legislation
- government sources
- ► theory
- research studies

You should bear in mind that as your research has no strong empirical component, you must put more emphasis on critically analyzing the issues you discuss and thoroughly developing your arguments.

As with a primary based research thesis, you can decide whether to combine your findings with your discussion, or keep these two sections separate. You can also use tables and figures to showcase your results.

■ Conclusion (and concluding thoughts)

The basic outlines for your conclusion and concluding thoughts (if you decide to include this section) would follow the same as those of a thesis based on primary data.

THE BACK MATTER

Reference list

All sources you used to write your thesis must be included within your reference list. Unlike the main chapters, this section **doesn't have a chapter number**.

In general, when listing your references, you should take heed of the following points:

- > you need to list your sources in alphabetical order by author's surname
- don't use bullet points or numbers
- all sources should be listed together (in other words, don't have a separate list for books, websites, etc.)
- ▶ you should start your reference list on a separate page

You're only expected to produce a reference list. However, you could be asked – or even choose – to create a **bibliography** instead. A bibliography differs from a reference list in that you should include *all* sources you consulted, whether you cited them in the final text or not.

Referencing styles

The university doesn't state that you need to use a particular referencing style. However, two of the most common styles are:

- American Psychological Association (APA)
- Modern Language Association (MLA)

Each referencing style has its own rules to follow in regard to in-text citations and reference entries. Life has been made much easier thanks to referencing software. However, there'll still undoubtedly be moments when you're unsure of what you need to provide for a citation or the reference list. For detailed guidance on referencing software, and the MLA and APA referencing styles, consult "**How to reference**" in the UHOH AGRAR Academic Writing Aid series.

If you're unsure of which style to choose, ask your supervisor(s) if there's a preferred choice in their institute. However, whichever you decide, *consistency* is the most important point to bear in mind.

Appendix

Not to be confused with an **annex** (which is a standalone document that provides additional information for a main document), an appendix (or appendices if more than one) contains relevant supporting information that doesn't need to be included in the main text. For instance, it could include the following:

- questionnaires or surveys
- ► interview questions or guidelines
- additional tables or figures

This section should only include **subsidiary information:** be aware that your supervisor(s) might not look it. However, you must remember to **refer to any**

appendices in the main text; otherwise, it's just a random section at the end of your thesis.

Your appendix – or appendices – should **start on a separate page.** The appendix is **not chapter numbered,** as with your reference list. However, if you include more than one appendix, each should be either numbered sequentially (i.e., Appendix 1, Appendix 2, etc.) or lettered sequentially (i.e., Appendix A, Appendix B, etc.). And your appendices should appear in the order they're introduced in the text.

4. RESEARCHING AND WRITING

This chapter is focused on two important phases of your thesis, First, it aims to assist you with finding the sources you'll need to carry out your research. Then, it looks at how to start writing and all the extra parts you'll need to consider when you're nearing completion.

SOURCING MATERIALS

For your thesis, you'll need to read as much as possible about your topic area, and get a good sense of what has already been found out about all aspects of it. For this, you'll need to use sound academic sources. If you don't use reliable sources, you won't be able to tell if a source is composed of factual and objective information, or falsified and biased material.

The following is taken from **"Sourcing academic materials"** in the UHOH AGRAR Academic Writing Aid series.

■ What are academic sources?

The most common examples of academic sources are:

- ► journal articles
- published literature
- published reports

However, these are not the only sources: nowadays, it's possible to use sources like YouTube to get your information. However, this doesn't mean you can use any video off the Internet, and it definitely doesn't mean you can start citing Wikipedia as source material...

Attributes to look out for in your sources include:

- Is the author a recognized expert in their field? Look at the qualifications of the author(s).
- ▶ What is the main organization involved? What is the background of this organization?
- ► Has the article been peer-reviewed? This means that other academics have read through the article before it was published and checked it for accuracy. Academic books and articles in academic journals will have gone through such a procedure.
- Is the article biased? Ideally, you should look for work that's objective. However, saying that, it depends on what information you're looking for and what you're researching.
- ▶ What sources did the author(s) use? Are they in themselves sound?
- Is the source aimed at academics (and, yes, that includes you)? Information aimed at academics from professors to students tends to provide reliable information.

Sources to be more wary of include:

- newspaper articles
- magazine articles

- ▶ opinion pieces
- unofficial websites

The main reason is that they're not usually academic, and there's the major risk of bias. However, of course, there are exceptions, and, again, it depends very much upon what you're researching.

Primary and secondary sources

A **primary source** provides first-hand account evidence. Main examples include:

- ▶ raw data from an experiment or interview you carried out
- historical or original data, e.g., interview transcripts, diaries, speeches, letters, official records, etc.
- ► creative works, e.g., music, art, novels, poetry, etc.

A **secondary source** extracts information from a primary source. For instance, it could discuss the primary source, or use it as evidence. Such sources are useful because you can benefit from the analysis of an expert. Examples include:

- ▶ journal articles
- magazine articles
- historical textbooks

Finding sources: online

The Internet is a wondrous resource: not only does it appear to be the portal to everything, but you don't even necessarily have to leave the comfort of your own home to use it. However, as much as it's full of useful material, it's also full of not so useful material: it's easier – but also harder – to find bona fide sources. Below are a few ways to make your search for useful information within the World Wide Web somewhat easier.

- Use academic search engines: there are a number of search engines that can help you to specifically locate academic sources. Two of the most popular are:
 - Google Scholar
 - Scopus
- Search on the websites of journal publishers: not all of these articles are free, but you can at least gain access to a large number of abstracts without the need for a payment.
- Access the Directory of Open Access Journals (DOAJ): as its name suggests, this directory does provide access to journals free of charge, offering a wide array of subject areas and languages.
- Check out the websites of academics, organizations, societies and faculties: you can access articles and reports directly from the website of a relevant expert or organization. For example, the United Nations offers a wealth of academic and professional reports for free, as well as the majority of non-governmental organizations.

- Explore government and legislative websites: this includes committees, commissions and state annual reports.
- ▶ Use the Elektronic Journals Library (EZB): the University of Hohenheim provides access to electronic full-text journals. E-journals licensed to the university are indicated with a yellow dot or yellow-red dot, but you need to be connected to the Hohenheim network. Simply use the link below for more information:

http://rzblx1.uni-regensburg.de/ezeit/search.phtml?bibid=UBHOH&colors=7&lang=de

► Find information using the Database Information System (DBIS): also provided by the University of Hohenheim, this database can help you to find bibliographic information on relevant articles and literature. If available electronically, it'll link you directly to the EZB. Find out more by using the link below:

http://rzblx10.uni-regensburg.de/dbinfo/fachliste.php?bib_id=ubhoh&lett=l&colors=&ocolors

■ Guidance for online research

Some – if not most – of your research will undoubtedly be online.

- ► First of all: **don't be tempted to** *only* **use online sources.** Good old-fashioned books contain information not attainable from the Internet.
- Think about effective keywords for your search. There's so much information and data online that it can be overwhelming. Have in mind a few keywords to apply when using a search engine.
- Try out different search engines. Different search engines work differently. Apart from Google, you can use, for instance, Bing, Yahoo, Beaucoup (composed of more than 2,500 directories and search engines), or Search Engine Colossus International Directory of Search Engines (composed of search engines from more than 230 countries worldwide).
- Keep a note or bookmark of useful websites. You may also find it useful to keep a note of unhelpful websites.

When assessing a website, there are a few questions you should bear in mind:

- ► Who is the author (this could be an organization)? What is their background? Who are they affiliated with?
- ▶ Who is the website aimed at (e.g., age range)?
- ▶ When was the website last updated?
- ► Is the information provided factual as opposed to simply someone's opinion?
- Are the arguments based on sound evidence?
- Does the website provide reliable sources?
- Is the author objective and not biased?
- ▶ Is the website well laid out? Are there any grammatical or spelling mistakes?

■ Finding sources: offline

There is, of course, a world outside of your laptop screen. Here are a few offline resources to consider.

Check out Hohenheim's Central Library: up and running again since 2014, the central library is home to many English and many more German literary works. Check out the main website below for opening times and its location (and don't forget to save a 2 € coin for a locker):

https://kim.uni-hohenheim.de/94991?&L=1#jfmulticontent c241279-1

If you can't find what you want in the library, then use the inter-library loan option online to order it for a fee of 1.50 €. More information can be found here:

https://kim.uni-hohenheim.de/95576?L=1

Visit the Departmental Library: located in the Schloss, this library contains literature focused on business, economics and social sciences (you'll also need 2 € for a locker). For information on opening times and its location, use the link below:

https://kim.uni-hohenheim.de/94991?&L=1#jfmulticontent_c241279-1

- ► Ask at your institute of interest: most institutes at the university have their own library. Make sure you ask a relevant professor or supervisor.
- Stuttgart's Municipal Library: shaped like a giant cube, Stuttgart's Municipal Library can be found in the center of the city. You can buy a borrowing card for a monthly or annual fee at the front desk. More information can be found at:

http://www1.stuttgart.de/stadtbibliothek/bvs/actions/profile/view.php?id=159

Additional tips

- ▶ Using personal experience: personal experience is very compelling, especially within an international institution like the University of Hohenheim. However, there are a few pitfalls in using it:
 - over generalizing your experiences are not universal
 - using hearsay as fact

Outside academic sources not only consider numerous sources, and rely on evidence and research, but they're usually peer-reviewed by experts. You *should* provide your own opinions – it's important to include original ideas, and show that you've understood and thought about what you've read and researched – but you need to support this with evidence from other sources. For more guidance on this issue, have a look at **"Academic writing style tips"** in the UHOH Academic Writing Aid series.

- Check the publication year: in certain circumstances, using "old" information is completely valid, for instance, when you're researching about a particular historical event. But, if you require contemporary data, take the time to look for information that's as up-to-date as possible.
- Look at the reference list or bibliography of sources you've used: this is a great way to find relevant sources and, if it's a new, or fairly new, publication, you should be able to find a number of recently published sources.

GETTING IT DOWN ON PAPER

This is possibly the hardest part. The UHOH AGRAR Academic Writing Aid series provides a number of materials to help you with academic writing. You can find these by using the following link:

https://agrar.uni-hohenheim.de/academic writing aid

The basic tips provided here are aimed at assisting you get through the writing phase.

- Start writing *today* (not tomorrow...)
- Write regularly daily if you can. Even if you only manage an hour, it'll help you to motivate yourself and get into a rhythm.
- If you don't feel like writing, at least try and read something. Or even find a relevant YouTube video or film.
- Saying that, don't overwork yourself! See it as a job and, time allowing, take weekends off. Read Chapter 6 of these guidelines for more on this issue.
- ► Take breaks. Food and sleep are important for productivity so don't shirk them. (Again, check out Chapter 6).
- If possible, don't work where you sleep. Many institutes offer students an office in which they can use a computer to write up their work. You can also book a space in Hohenheim's main library (ask a librarian for more information).
- ► It's not advisable to write chronologically from the introduction to the conclusion. Usually, it's easier to write the middle chapters first. The abstract, introduction and conclusion are best left until last. If you find yourself blocked at any stage, try tackling another chapter. However, don't leave the sections you like least until last: the sooner they're finished, the better!
- Avoid revising your work while you're writing. This might stop your flow of ideas. Leave this until the end.
- Reward yourself for writing! Having something to look forward to can be a great motivator.

REVISING, EDITING AND PROOFREADING

Revising, editing and proofreading shouldn't be considered as an additional chore *if* you have time at the end: you should factor these in as part of your overall writing process. In this respect, your goal shouldn't be to write as much as possible until you hit your deadline. You need to give yourself the time and space to read (and re-read) your work. Ideally, you should give yourself enough time to forget about at least some of the contents of your thesis before you even attempt to revise, edit and proofread it. If you read it straight after you've finished writing it, then you're still too involved in the content and have no chance of appreciating it as a reader might, and, most importantly, less chance in spotting any mistakes.

The follow section is based on "**How to write an academic paper**" in the UHOH AGRAR Academic Writing Aid series.

Revising

Revising your work isn't simply checking for grammatical errors and spelling mistakes (that's proofreading): it's about revamping your first draft into a new and improved paper. For this, you'll want to bear in mind your flow of ideas, the logic behind your arguments, and the soundness of your evidence.

Revising your thesis probably won't be a clear cut process of rights and wrongs: you might delete some parts, modify certain sections, and change the position of others. It's advisable to not only keep the latest draft, but to **save earlier versions as well.** One reason behind this is so that if you delete a passage only to find later on that actually it *is* of value, you can easily obtain it again.

As you look through your work, ask yourself the following questions:

- ► Did you answer your research questions and/or hypotheses?
- ► Is the focus of your research clear?
- ► Have you introduced and explained all the concepts and theories you've discussed?
- ► Are all your arguments sound?
- ► Are there any ambiguities in your reasoning? Have all your ideas and arguments been explained clearly?
- Have you included enough sources to support your arguments?
- ► Have you used the appropriate concepts, theories and terminology?
- Have you included enough of your own original thought and ideas?
- Are your sentences clear? Do you need to include more/less words?
- ► Are all your sources properly cited, including direct quotations?

Some additional tips to revising your work include:

- **Print out your work:** most people find it easier to read from a paper version.
- Read aloud: of course, this is more advisable if you're in the comfort of your own home (fellow students in the library may not appreciate it). Check the flow and meaning of your sentences and paragraphs.
- Get feedback from your peers, friends and family.

Editing

Once you've revised your thesis and are pleased with the overall content (as well as possibly being sick of the sight of it) you can **edit** your work. Editing aims to make your writing more concise, and easier to follow and understand. As with revising, it's advisable to print out your work and edit on a hard copy.

There are a number of issues that you may come across while attempting to edit your work. Below are a few of the most common ones.

- Wordiness: do you need four sentences to describe a concept, or could you only use one? This issue is dealt with in detail in "How to write concisely" in the UHOH Academic Writing Aid series.
- Repetition: by reading through your paper in one go, you should be able to see if you repeat any ideas. Consolidate or delete sections in which you repeat yourself.

- Word choice: ask yourself whether you've chosen the best word to convey your message. Does it convey the right meaning? Could you find one which is more concise?
- Sentence structure: read through each sentence carefully and consider whether it's well-constructed and comprehensive. Does it clearly state what you intended it to?
- Don't only depend on the spell/grammar check: use your own acumen to decide if a sentence states what you want it to.

There are also a number of additional issues to look out for:

- Be careful of personal pronouns: avoid where possible. For more guidance on this, have a look at "Active versus passive voice" in the UHOH Academic Writing Aid series.
- Be wary of using the **correct tense**.
- Avoid clichés and slang: you're writing an academic paper, therefore, you should only use formal language. See "Academic writing style tips" in the UHOH Academic Writing Aid series for more information.

Proofreading

The final stage is **proofreading** your paper. This is where you look for any grammatical, spelling and formatting mistakes.

- ► As with revising, it's advisable to abstain from looking at your work for at least 24 hours, if not a couple of days...
- ► Again, print out your work and read through a paper copy.
- Use a pen to point out each word to keep you focused, and think about each sentence carefully, bearing in mind grammar, punctuation, spelling and meaning.
- It can help to read from the last sentence to the first!

Don't forget to be wary of consistency for example:

- ► Are all your headings, tables, figures, etc. formatted in the same way?
- Have you been consistent in regard to font and font size?
- ► Have you only used US or UK English spelling throughout?

Once you've corrected any mistakes, print out the new version and proofread it *again.* This will definitely require time management, but – as with revising and editing – you should regard proofreading as part of the overall writing process.

As a last note: be careful about sourcing out your proofreading – this can be costly and, when searched for online, could be unreliable.

HANDING IN A DRAFT AND ASKING FOR FEEDBACK

First of all, **don't feel that it's an imposition to ask for feedback** from, at least, your first supervisor: this is part of the role they agreed to. And dispel any nerves you might have about others reading your work: if you have any doubts and insecurities about your work it's better to know sooner rather than later.

If your supervisor is willing to read a draft of your thesis, or accept it section by section as you complete each part, it's advisable to get whatever you're submitting as polished as possible before seeking feedback. However, make sure you **plan enough time** for them to read it and get back to you, and for you to make any relevant changes.

Not all supervisors will have the time or inclination to read through a whole draft of your thesis. However, they might be willing to assist you with a certain section or a few select queries. If they agree to meet you to discuss a few points, or give you the green light to write them an email, it's important to make sure you're prepared: by approaching them with particular inquiries, they'll be more likely to assist you. Know exactly (or, at least, basically) what you want from them. Prepare concise questions and avoid being vague or ambiguous. This meeting or email might be a one off, so don't spoil your chances of getting the information you need by not knowing yourself exactly what that is. Do you want feedback on the:

- structure?
- worth of your evidence?
- flow of your ideas and arguments?
- writing style?
- Iayout of your tables and/or figures?

If you find yourself with an evasive supervisor, and, try as you might, you simply can't make contact with them, then you may have to seek help elsewhere:

- approach another professor or lecturer in the department or institute
- ▶ track down a willing PhD student studying in your field
- email relevant professors, scholars and/or authors with specific questions (you might be surprised at the responses you get)
- ask your peers for advice

In fact, it's advisable to **seek feedback from as many sources as possible.** For instance, one easy way to achieve this is to upload your thesis onto Dropbox and then send the link out to all your friends and family.

5. FORMATTING, REFERENCING AND OTHER ISSUES

1818

This chapter is focused on layout details, what you should consider when formatting, and the importance of referencing, citing and avoiding plagiarism. It's important to note that this is *general* information: make sure that the faculty with which you write your thesis doesn't have its own specific guidelines.

LAYOUT

General layout

Your page layout should be as follows:

- **size:** A4 (21 cm x 29.7 cm)
- **margins:** top: 2.0 cm; bottom: 2.0 cm; left: 2.5 cm; and right: 2.0 cm

■ Line spacing

In general, your line spacing should be 1.5 or 2. However, there are a number of exceptions in which the line spacing should be single:

- ► table of contents
- captions for and contents of tables and figures
- ► reference list or bibliography
- footnotes and endnotes
- block quotations (usually quotations of 40 words or more)
- computer program listings and codes

Where possible, write full pages down to the bottom of the page. Try not to leave any "orphan" lines.

Text alignment

Your main text should be either:

- ▶ justified
- aligned to the left

The only exceptions are main headings: these tend to be centered.

Pagination

The following table sums up what pages should be numbered and the type of numbering you should use. Additionally, it also states what sections you should include in your table of contents.

Page	Page Numbering	
Cover page	None (but counts as i)	No
Statutory declaration	Roman numeral	No
Acknowledgments	Roman numeral	No
Abstract	Roman numeral	No
Table of contents	Roman numeral	No
List of abbreviations and/or acronyms	Roman numeral	Yes
List of symbols	Roman numeral	Yes
List of tables and/or figures	Roman numeral	Yes
Main chapters	Arabic numeral	Yes
Reference list or bibliography	Arabic numeral	Yes
Appendices	Arabic numeral	Yes

Headings

You can choose to format your headings in two main ways. The first is to have chapter headings, but no further numbering with any sub-headings (as you'd find in a book, for instance). This is more popular for the social sciences.

The second is to have a hierarchy of heading levels. For instance, for chapter 1, the second level of sub-headings would be 1.1, 1.2, 1.3, etc. The second level of sub-headings for chapter 1, sub-heading 1, would then be 1.11, 1.12, 1.13, etc. It's advisable not to go beyond three levels (i.e., 1.111, 1.112, 1.113, etc.)

Each chapter usually starts on a new page. The formatting of your headings is up to you, but, in general, main chapter headings are in bold. This helps them to stand out against the rest of the text. When choosing a referencing style, for example, APA or MLA, you'll find that they provide guidelines on how to present your headings and sub-headings. This information can easily be found online. Specific guidance on referencing styles can also be found in **"How to reference"** in the UHOH AGRAR Academic Writing Aid series.

Again, the only sections that *don't* require a chapter number are: the table of contents, the references, and any appendices.

As mentioned before, you don't want to leave any "orphan" lines at the bottom of pages (apart from when you're starting a new chapter). However, saying that, don't leave any headings or sub-headings hanging at the foot of a page without any subsequent text. Simply pressing the Enter key to move such headings onto the following page may leave you with a formatting headache when you add additional text later on. Instead, it's better to format the text properly. With Microsoft Word 2010, select the heading and at least the next line of main text and then select **Home** > **Paragraph** > **Line and Page Breaks** and tick **Keep with next** (used for separate paragraphs). **Keep lines togethe**r is used for lines in a single paragraph.

ndents and Spacing	Line and Page Breaks
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■ Chapter title headers

If you have the time and the inclination, you can include each chapter title in the header section of its relevant pages (as has been done for these guidelines). It gives your thesis a more professional look, and can help your reader to navigate through it. If you're unsure on how to go about this, you can find a lot of guidance online.

FORMATTING

■ Font type, size and style

Use a **sans-serif typeface** (e.g., **Arial** or **Helvetica**) or the serif typeface **Times New Roman** for the main text. You can be more adventurous with title fonts, but make sure that they're still easy to read and avoid mono-spaced fonts (e.g., Courier).

The main text should generally be **12 point.** A slightly larger font size can be used for titles and subtitles, i.e., **14** or **16** points, while a slightly smaller font size can be used for table and figure captions and contents, i.e., **10** point.

Bold can be used for headings and sub-headings. If you want to emphasize a word or phrase, it's more common to use *italics* or "quotation marks". But, use such techniques sparingly – if used too much, they lose their effect. Avoid <u>underlining</u> altogether.

■ Paragraphs

It should be clear when you're starting a new paragraph. There are three main ways in which you can achieve this: by using the tab key to indent the text, by leaving a gap between paragraphs, or both. If you leave a gap, try not to use the Enter key: if your word processing program doesn't leave a gap automatically, find the paragraph option and choose a gap of 6 point. One way to achieve this in Microsoft Word 2010 is by choosing the following options: **Home > Paragraph > Indents and Spacing.** Then opt for 6 point in the **Spacing** section, either before or after.



■ Tables and figures

The following is based on "How to create tables and figures" in the UHOH AGRAR Academic Writing Aid series.

Tables and figures are great ways in which to relay information clearly and succinctly. However, don't forget to *always* introduce them in the main text *first*. But, don't simply state its caption, or direct your reader to it: make it fit into your analysis or discussion. You then want the table or figure to **appear as soon after its** introduction as **possible** (once you've finished the paragraph, for example). If you can't fit it onto the same page as its introduction, or discuss it again later on in your thesis, include the page number on which it appears, e.g., (Table 1 on page 28).

Tables and figures should be able to **stand on their own.** This means that you must make them as comprehensive as possible.

As a general rule, you should **capitalize** "**Table**" and "Figure" in your text. However, if you decide not to, just be consistent.

All your tables and figures should **include a caption explaining what they're showing.** Make it concise, but comprehensive: this will be what you use in your table and figure lists so it should make sense on its own. You can use a smaller font for these captions, the most common being 10 point. Just make sure that you use the same for all tables and figures. You should also be consistent as to whether you use a period or a colon after stating the table or figure number, e.g., Table 1. or Table 1:

Don't forget to **number all your tables and figures.** There are two main ways in which you can do this. The first is consecutively throughout your thesis, i.e., Table 1, Table, 2, Table 3, etc. The second is by chapter, i.e., for Chapter 1, the tables would be labeled as Table 1.1, Table 1.2, Table 1.3, etc., and for Chapter 2, the tables would be labeled as Table 2.1, Table 2.2, Table 2.3, etc. Whichever style you pick, use the same for both your tables and your figures. And don't forget to **double check their numbering is consecutive** when proofreading your thesis!

In regard to citing sources for tables and figures, outlined below are the three main situations you may come across:

- You created the table or figure created yourself using your own data: you don't need to provide a source.
- You took a completed table or figure from another source: you need to provide the source(s) you used underneath the table or figure, preceded by "Source:"

You used data from another source to create a table or figure, or modified a framework or diagram in some way: you need to provide the source(s) you used underneath the table or figure, preceded by "Adapted from:"

If you're stuck on how to present your tables and/or figures, use publications, as well as past theses, for inspiration.

Tables

The table caption needs to go **above the table.** If a table goes over a page, you should split the table at an appropriate section and repeat the main heading on the next page. Don't forget that you can change the paper layout to landscape if this enables you to fit the table onto one page.

Figures

Figures include diagrams, graphs, maps, illustrations, art and photographs. Unlike table captions, a figure caption goes *below* the figure. When discussing a figure in the main text, it's possible to shorten "Figure" to "Fig." But, you shouldn't do this in the caption.

When using graphs, don't forget to label both axes and include any units. If using some form of graphics or photographs, make sure that the image is as clear as possible. Similarly, all graph elements must be legible (as a rule of thumb, at least 2.5 mm).

■ Footnotes and endnotes

You can use footnotes or endnotes to provide additional information that you don't need to include in the main text, but that could help your reader understand further the point you're trying to make. As their names suggest, the main difference between them is that footnotes appear at the *foot* (bottom) of the page, and endnotes appear at the *end* of the relevant chapter or the whole thesis.

Depending on the referencing style you use, footnotes and endnotes can also be used instead of in-text citations and a reference list. Instead, whole references are included as footnotes or endnotes. But, you should check with the regulations of your referencing style first.

Your word processing program should number any footnotes or endnotes sequentially. Their font size will be smaller (usually 10 point), and the text should be single spaced.

For more guidance on this issue, check out "**How to use footnotes and endnotes**" in the UHOH AGRAR Academic Writing Aid series.

Abbreviations and acronyms

Before you use an abbreviation or acronym, you must provide it in *long form first* (unless, as mentioned before, it's more commonly known in its shortened form). After you've provided the shortened form, you should *always* use it. However, there are at least two exceptions:

- if you use one in your abstract (which is not advisable, but might be necessary due to length), you should repeat it in the main text;
- and if you use one in a footnote or endnote for the *first* time, as not all readers will read these parts.

Abbreviations and acronyms can make life easier, but be careful not to overwhelm your reader so that they're left wading through a mass of capitalized letters. For instance, if you only refer once or twice to an organization, there's no real need to use an acronym in place of its name in long form.

You can also invent your own abbreviations, for example, in order to shorten the name of a document that plays a central role in your research. However, again, be careful not to go overboard so that it's difficult for your reader.

■ Lists

Make sure that however you decide to construct any lists, you're consistent throughout your thesis. All the items in a list should be in the same style, e.g., all single words or all short phrases. A list can't consist of a whole paragraph, and you shouldn't start a list straight after a title or subtitle.

If you include a list within the text (as opposed to bullet points) you can use Arabic numerals (i.e., 1, 2, 3, etc.), Roman numerals (i.e., i, ii, iii, etc.), or lower-cased letters (i.e., a, b, c, etc.). Again, stick with one style (either numbers or letters). However, saying that, numbers could be used if you're giving information that should be in a particular order, for instance, the steps of a method; whereas, letters could be used if you're just listing points that don't necessarily have to be in that order.

It's advisable to use either one bracket, e.g., 1), or two, e.g., (1). Avoid using a period: it's not as distinct.

LANGUAGE BASED ISSUES

Capitalization

In English, only proper names (e.g., the names of people, places, literature and organizations) need to be capitalized. Don't use them for emphasis – for this, use, as previously mentioned, italics or quotation marks instead.

In German, *all* nouns are capitalized: remember that this isn't the case in English!

■ Special characters

Try not to use parenthesis (()) or dashes (–) too often in your writing as it can become confusing for your reader. To prevent overuse, see if you can replace dashes with commas, or the words "or" or "and" instead.

Tenses

The table below provides general guidance only: there are always exceptions.

Tense	When to use it	
Past	 Referring to a study or method that's finished (including yours) Discussing the results you obtained 	
Present	 Stating your objectives in the introduction Referring to an established fact in your field Stating a conclusion and/or recommendation based on your research 	
Future	 Explaining the layout of your thesis Discussing possible future research 	

■ Active versus passive voice

As a general rule, it's advisable to use the **passive voice.** This is because you can avoid using personal pronouns, i.e., I, you, me, etc., thereby making your writing sound more objective. However, the **active voice** is praised because it's more concise and adds clarity to your writing. Ultimately, just be discerning when deciding which to use.

For more guidance on active and passive voices, have a look at **"Active versus passive voice"** in the UHOH AGRAR Academic Writing Aid series.

NUMBER BASED ISSUES

Quantities and units

You should use the International System of Units (SI). Most acronyms and abbreviations you use should be initially defined. However, there are a number that don't require this: you need to be sure off which these are. Listed below are a number of formatting issues you should consider:

- ▶ Place a space between a number and its unit.
- ▶ Place a space or a slash between two units that appear together.
- But, don't put a space before a percentage or angular symbol, i.e., 80%, 15°, 20', 7", etc.

If you provide an exact amount, e.g., 6 cm, you should use the unit symbol. If you don't, then you should use the symbol name, e.g., a small number of centimeters.

Mathematical equations

It might be that you use mathematical expressions in your research that include symbols, functions, numbers, units or a combination. Below are general guidelines for formatting such equations. Bear in mind: you should ask your supervisor(s) if there are any additional requirements.

Formatting

Your mathematical expression(s) will undoubtedly consist of a number of parameters. You need to define these when you first introduce your equation(s).

- Write the parameters in italics (in the equation and anywhere else in the thesis when you refer to them).
- Units, numbers and functions shouldn't be written in italics.
- Equations should be written in the same font size as the rest of the main text.
- Equations should be written on a separate line, centered or indented (whichever you choose, be consistent), and with a gap above and below them.
- Don't capitalize "with" or "where" when listing the variables.

Numbering

In your thesis, you might include equations that you don't refer to in the main text and others that you do. In terms of the first, if they're short, you can include them within the main text, and if they're long, you can include them on a separate line but without a number. In regard to the second, you should number them either consecutively (e.g., (1), (2), (3), etc.) or based on the chapter (e.g., for chapter 1: (1.1), (1.2), (1.3), etc.)

- The number should be put in brackets and placed on the right hand side of the page.
- When referring to an equation in the text, write "equation" and the number, e.g., equation (1), or use an abbreviation, e.g., eq. (1). Alternatively, you can just use the number. However, if you start a sentence with a numbered equation, always precede it with "Equation", e.g., Equation (1) as opposed to Eq. (1).

CITING SOURCES AND REFERENCING

How you cite sources and reference within your thesis will depend on which referencing style you choose. There are a number of styles you can choose from. Two of the main styles are described below:

► APA (American Psychological Association)

Although originally drawn up for use in psychological journals, APA style is now widely used, including in:

social sciences

- education
- business
- economics
- numerous other disciplines

More information on this referencing style can be found on the official APA website: <u>http://www.apastyle.org/</u>

MLA (Modern Language Association of America)

MLA style is used mainly in:

- English language
- the humanities, including:
 - history
 - literature
 - the fine arts
 - philosophy

More information on this referencing style can be found on the official MLA website: <u>https://www.mla.org/</u>

For an overview of how to cite sources using APA and MLA styles, check out "**How** to reference" in the UHOH AGRAR Academic Writing Aid series.

There are, of course, other referencing styles that you may have heard of, including:

- Chicago Manual of Style
- Harvard
- Vancouver

Whichever referencing style you choose, it's important to be aware of the fact that each comes with its own rules, both on how to create in-text citations and on how to form a reference list. You should be consistent in regard to the style you choose.

PLAGIARISM

Plagiarism is a serious offense, i.e., you'll be given a fail for your thesis if you're caught. And, as the university uses software to check your work, the chances are you *will* be if you do it.

The following is taken from "How to avoid plagiarism" in the UHOH AGRAR Academic Writing Aid series. For more detailed examples of plagiarism, have a look at this text.

■ What is plagiarism?

Using specific words and phrases, i.e., copy and paste

If you take words, a phrase or a few sentences word for word from an author, and don't place them within "quotation marks" *and* provide a citation (including the page number (or paragraph number for APA style) of where the word or phrase was in the original text), this is plagiarism, **verbatim.** This copy and paste handiwork is particularly easy to spot. However, don't think you can get

away with simply changing an odd word here or there while keeping the same structure and general language: this is known as **mosaic** plagiarism.

This also includes taking material from *your own* previous work: you can't simply copy and paste from an old essay or thesis that has already been marked, and attempt to pass it off as new (especially if your present professor was the one who graded it before).

Using information and ideas

Even if you use your own words – **paraphrase** –, when you use someone else's ideas, concepts, methods, theories, etc., you must cite the author(s). Otherwise, this is plagiarism: you've still taken someone else's ideas and put them forward as your own.

■ What isn't plagiarism?

General common knowledge

If you use facts that are well-known, be it geographical, political or historical information that is common knowledge in the public domain, you don't need to provide a source. This includes, for instance, that the Battle of Hastings took place in 1066, or that Germany is part of Europe.

► Field-specific common knowledge

This is knowledge that is well-known within the field in which you're writing, for instance, a particular economic theory or scientific method. However, you need to be sure that this information is, in fact, commonly understood by your readers. You should check this with your professor or supervisor if you're unsure.

In-text citations

In order to avoid plagiarism, it's important to recognize when you need to include the citation of a source within the text. As highlighted earlier, it's not always necessary to do so.

The table on the following page provides a list of different scenarios you may come across during your writing, and indicates whether or not you need to provide an intext citation.

Scenario	Yes, you should	No need to
You write about an idea you've had or a theory you came up with	×	✓
You write about someone else's idea or theory, but you paraphrase it	\checkmark	×
You use figures from a source in order to back up your argument	\checkmark	×
You decide to directly quote a sentence from a source	\checkmark	×
You find an interesting diagram on a website and decide to use it	\checkmark	×
You create a table using data you found through your own research	×	✓
You use a fact that is common knowledge	×	\checkmark

FINAL THESIS CHECKLIST

This is an overall checklist to consider when revising and double checking your thesis.

- ► Have you signed the declaration?
- ► Does your abstract provide a full summary of your thesis, and is it a standalone piece of writing?
- ► Have you numbered all the relevant pages and done so correctly?
- Does your table of contents correspond to the headings and sub-headings of your thesis?
- Does your introduction clearly state your research problem, objectives and research questions (and hypotheses)?
- ► Do the lengths of your paragraphs make for easy reading?
- ► Are your sentences understandable and grammatically correct?
- ► Is your word choice correct and logical?
- Did you use punctuation correctly?
- ► Are all organizations and foreign words spelt correctly?
- ► Have you referred to all tables, figures and appendices in the main text?
- ► Are your tables, figures, formulas and appendices numbered correctly?
- ► Have you given all your tables and figures captions? Are the captions for tables under the tables, and the captions for figures over the figures?
- ▶ Have you included all relevant citations?
- Does your reference list cover all the citations you included in the main text?
- ▶ Do all your references contain the required information?

6. MATTERS OF THE MIND

Even the most organized of people can have moments in which they freak out. The following chapter is aimed at helping you with issues of the mind, including dealing with those periods of demotivation and stress, and learning how to avoid procrastination.

WAYS TO IMPROVE CONCENTRATION

The following is taken from "Ways to improve concentration" in the UHOH AGRAR Academic Writing Aid series.

Even with the best will in the world, sometimes it can be hard to concentrate. Sadly, for many, motivation does not have an on/off switch. And it's very easy when lacking that incentive to work to simply not even bother. However, before you put down that pen and start streaming the next episode of your favorite series, see if these tips don't provide you with the additional impetus you need to get reading and writing.

Preparations

- Know where you work best. If it's in the library, prepare your bag with everything you'll need the night before so that when you wake up you're half way ready to go. If it's at home, only have the essentials you'll need on your desk to avoid unnecessary clutter. Avoid working on your bed! That's just asking for trouble...It's also worth bearing in mind the following questions:
 - When is the study location available? For example, if you're a night owl who works best in the early hours, Hohenheim library wouldn't be ideal.
 - Do you prefer studying alone or in a group?
 - Do you find you're more comfortable studying at a desk, or lying on the floor?
 - Do you work better with a certain amount of noise, or do you need complete silence?
 - In what environment is the lighting, temperature, ventilation, etc., ideal for you?
- Know when you work best. There's probably a time of the day in which you feel most efficient. Of course, life being what it is, you may not always have the luxury of choosing when you study. But, where possible, choose that time of the day to get your hardest work done.
- Make sure you're properly fed and watered. If you work best with a little caffeine inside you, make a flask or a cup of coffee or tea as part of your preparatory ritual. But, don't forget water. Snacks can help keep any cravings at bay. And, yes, if you can, the healthier the better of course, .e.g., fruit, nuts, etc.
- If you're a person who finds that their mind wanders a lot and that you have a tendency to remember all those important things you need to do when you're

supposed to be working, **keep a note pad next to you** to jot all those thoughts down.

During studying

- Take regular breaks. Most people only work most effectively from 30 to 60 minutes. Ideally, during this break (of 10 minutes or so it should be added), you should reflect on what you've read or written. So, for instance, you could do something mundane like clean the toilet, or water your plants.
- Don't give in to mental fatigue, however tempted you might be to use it as an excuse that you're done for the day. This will pass. However, you'll have to push past it. Take a break and give your brain a ten minute rest.
- Viewing your work as one massive block can be very demotivating. Break your thesis down into manageable chunks that you can complete one by one.
- If you feel yourself giving in to procrastination, remember: the sooner you start, the sooner you can finish. And check out the next section.

HOW TO AVOID PROCRASTINATION

The following is taken from "**How to avoid procrastination**" in the UHOH AGRAR Academic Writing Aid series.

We've all been there: you're sitting in front of your laptop, the intention being to start that academic paper, scientific report or thesis, but, instead, you end up procrastinating: you just remembered that you need to check your bank balance; you haven't checked your email accounts for an hour, maybe you've received something important; you *will* start writing, but you simply must clean your hard drive first...

Below are a few tips to help you *do* as opposed to dawdle.

Reasons (and strategies) for procrastination

People can procrastinate for a number of reasons. Below are a few of the main ones, along with strategies to get around them.

- ► You're not interested in the topic: there might be a compulsory module that you just don't care for, but, sadly, you're stuck with it.
 - Sometimes, people don't like a topic because they don't fully understand it. If this is the case, go back to the basics of the subject and see where you're tripping up.
 - Ask your peers if they'd be up for a study session where you could discuss ideas and issues.
 - Try and relate the topic to your own interests and/or current events. Making such associations can help make the topic more appealing.

► You have trouble getting started:

- Have a definite starting time. If it helps, arrange to meet a friend at the library at a certain time.
- Know where you plan to study. If it's at home, make sure your work area contains only essential items. If you're going to the library, remember all the supplies you'll need.
- Remember: the sooner you start, the sooner you can finish...
- ► You view the task as one unmanageable chunk: regarding a report or paper as a whole can be overwhelming.
 - Instead, break it down into a list of manageable parts that you can complete one by one.
 - Some people find making a work plan helps to keep them on track. However, make sure that it's realistic; otherwise, it could end up having the opposite effect.
 - Plan what it is you want to achieve each session, and work until you've accomplished this.
- ► You struggle with reading and note-taking: it could be that you lack important studying skills.
 - Check out "Getting started: understanding the question and notetaking" in this series.
 - Look for further guidance online.
 - Set up a study group with your peers.

As hard as you try, your mind just wanders...

- Only allow yourself to check emails, What's App, Facebook, etc., after a certain period of time, or the completion of a particular task.
- Block distracting websites with online software.
- Have a pad or piece of paper on your desk for scribbling down thoughts you have. You can then deal with them later.
- If you find you're more distracted alone, go the library. If people distract you, find a solitary environment.
- Take regular breaks. For most people, their brain can only run effectively for certain amounts of time, say half an hour to an hour. Take a ten minute break when you feel your energy levels waning: clean the bathroom, read a few pages of a book, watch a YouTube video. But, be careful not to let your 10 minute break turn into the whole afternoon...

As soon as you start, your eyes just begin to close...

- First of all: make sure you get a good night's sleep.
- Diet and exercise really do affect your energy levels so keep an eye on these aspects of your life.
- Keep well watered: enjoy a coffee, but also keep stocked up on water.
- Figure out what time of the day you work best.
- Make sure you have a good air supply: stale, stuffy air will slow down your brain function.
- Take regular breaks.
- Mix up your activities: don't simply concentrate on one topic or chapter.

You can't concentrate because of personal problems: if you're suffering from persistent personal issues, from financial and grade worries, to anxiety or depression, you may find that your brain simply cannot block these out. In these circumstances, it might be worth dealing with them as much as possible first. Check out the section "If it all gets too much" in this chapter.

■ General helpful strategies

- Set-up your own support group. You could meet with these people in person, or create a group online. Through this, you can discuss any issues. Simply knowing that there are others in the same boat as you can be motivation enough. Be careful not to use it as another procrastination channel though!
- You'll no doubt have to deal with interruptions. There are ways to help prevent some of these, for instance, put your mobile on flight mode, and/or let friends know that you'll be in "hermit mode" that day and to avoid contacting you.
- When you complete a section or goal, reward yourself!
- ► Try not to stress yourself out: this is not conducive to productivity. This assignment is probably not the be-all and end-all of your life. Do what you can, get assistance where possible, and hand it in on time.

FINDING TIME TO RELAX

Many people underestimate the importance of finding time to relax and unwind. It's important to point out that this doesn't equate to hardly working. On the other hand, spending 24/7 reading and writing won't enable you to work efficiently either.

In this respect, one way to view your thesis is like a 9-5 job: do your six to eight hours, Monday to Friday, then have the weekend off, guilt-free. Of course, this isn't always possible: certain experiments may require you to work longer or inconvenient hours. However, if this is the case, you'll just have to make sure that you find the time to take off.

If possible: don't work at home, or at least not in your bedroom. Having a different space in which to work can help you to disassociate from your thesis when you want to relax. Otherwise, it's easier to start up again after dinner. With many institutes, it's possible to get office space that you can use while writing your thesis: check with your supervisor(s). Otherwise, it's also possible for Master's students to reserve a place in the central library: ask a librarian for more details.

If you're still feeling guilty, remind yourself that downtime is actually productive in itself. It gives you time to process your ideas and distance yourself from your work so that you can appreciate it in different ways. Burning yourself out by not getting enough rest and sleep is not conducive to finishing.

DEALING WITH STRESS

Stress can actually be a positive emotion if harnessed and used to drive rather than dissuade. However, when you find that this stress has started to affect your "everyday life" – from finding it difficult to sleep and becoming more emotional, to not

being able to get up in the morning and losing interest even in activities you used to enjoy – you'll need to get a tighter rein on it.

Listed below in "Helpful habits" you'll find a number of ways to help keep your anxiety levels at a minimum. However, if you're finding that writing your thesis is taking more of an emotional toil than you can handle, check out "If it all gets too much" in this chapter.

■ What to do in those "losing it" moments

Most people will have those "losing it" moments while writing their thesis. You feel overwhelmed. Nothing makes sense anymore. You can't work hard enough. You can't focus. Even things that made sense, no longer make sense. Nothing you do seems to get you anywhere. Why are you even attempting to write this? What's the actual point of your research anyway?!...

Take a deep breath, and take a break. When you're in this mindset, you're not going to get anywhere. Go for a walk or cycle; head to Mensa and buy a coffee. Talking to a friend in the same position can be a great way to unload. In these moments you can feel like you're the only one in this mental predicament, but you're not. Give yourself time to recover (at least somewhat).

If you're truly stuck, don't let your anxieties prevent you from asking for help. For some people, this is easy; for others, it's a much harder course of action. You're still learning, and professors and supervisors understand and should appreciate that. Drop them an email, explaining exactly what it is you're struggling with, or arrange an appointment armed with a number of queries – the more focused you are with your questioning, the more likely they'll give you constructive guidance.

IF IT ALL GETS TOO MUCH

If it all starts to get a bit too much to handle, don't forget: you're not alone.

- Talk to friends and family.
- If you're worried about your grades or a particular assignment, speak to an approachable professor or supervisor. If not, you can also contact Katrin Winkler (<u>katrin.winkler@uni-hohenheim.de</u>) or Kerstin Hoffbauer (<u>kerstin.hoffbauer@uni-hohenheim.de</u>) to discuss any general study issues.
- Contact Hohenheim's Student Counseling Center (Zentralen Studienberatung (ZSB)). Its contact details can be found in Chapter 11.
- Visit your local doctor and ask about counselors and/or therapists in the area. There are English speaking options available.

Ultimately, it's important to put your thesis into perspective: it's not more important than your health and sanity. Don't start to confuse your self-worth with that of academic success. In this respect, it's vital that you find a way in which you work effectively, and this includes looking after your wellbeing.

GENERAL HELPFUL HABITS

You're probably more than aware of the following points listed here, but there's no harm in being given a gentle reminder.

- Organize your time: some people find creating a timetable helpful but this doesn't give you a free ticket to spend hours and hours on Excel composing a schedule instead of working...At least try and prioritize your tasks. This way you can focus on particular sections, as opposed to viewing the thesis as one massive task you have to complete.
- ► Eat healthily: yes, this old chestnut. But, as much as snacking on crisps and chocolate can be momentarily comforting, it can backfire when you find yourself lacking energy. As much as it doesn't seem like it most of the time, your mind and body are connected: if you fill your body with nutrient-poor foods, there's not much your brain can retrieve for working effectively, and your emotional state is more likely to suffer. Look up "brain foods" online: these include omega 6 rich comestibles, including oily fish, eggs and nuts (there's a reason why those little bags of nuts and raisins you find in most German supermarkets are called "studentenfutter").
- Exercise regularly: another well-known maxim. Going for a jog or a bike ride, taking a walk, or doing a little yoga to break up your work is a great way to get your energy levels up. It's also a proven way to deal with stress and anxiety.
- Sleep enough: aim to get a good night's sleep (the standard amount is between seven and eight hours). The benefits of sleeping well can't be overstated. It allows your brain to process what you did during the day, allowing you to wake up refreshed. It can be tempting to cut back as your deadline approaches, but bear in mind that tiredness seriously negatively affects concentration and motivation.
- Drink plenty of water: caffeine is a great energy booster, but what goes up must come down and you don't want to end up crashing. Therefore, make sure you always keep a liter bottle or a big glass of water on hand.
- Get enough fresh air: go outside for ten minutes, or simply open the window.
- Meet up with friends: this is important, especially if you're writing alone all day in the privacy of your room.
- Undertake mind training: there are plenty of methods online that can help you to improve your concentration. At the end of the day, improving your concentration is akin to learning a new skill.

7. HANDING IN

If you're at this stage then you're nearly there! Here are the last steps that you need to consider.

Copies required

You need to hand in **two bound copies** of your thesis. They must be **perfect bound** (otherwise known as thermal or hot glue binding). Comb or spiral binding *won't* be accepted, and neither will the use of a ring or slide binder.

You also need to hand in **one unencrypted digital copy** (using the format .doc, .docx, .odt, .pdf or .rtf) on a CD. To do this you can use a computer in the library or one of the computer rooms on campus.

Binding

It's possible to have your thesis bound at the stationery shop located close to BW Bank in Plieningen Garbe. They only bound up to 200 pages or so (otherwise, you'll have to find yourself a book binder which is not the cheapest option), and for two copies it'll cost you around 15€ (but cost will, of course, depend on your preferences). You'll have a choice of colors, and can decide whether you want a clear plastic front cover or a colored one.

It's advisable not to leave this until the last day/moment. But, of course, it can happen. Thankfully, the binding process usually takes just under one hour.

■ Where to go

You need to hand in your completed thesis at the SIZ. Outside of SIZ opening hours, it's possible to put your thesis in the examination office's mailbox.

You can also post it to the following address:

Prüfungsamt, Schloss, Mittelbau, Zi. 035, 70593 Stuttgart

In this case, the postmark will serve as the date of submission

Again: don't forget to sign your declaration form!

■ Grading timeframe

As a rule, the time needed for grading your thesis shouldn't be more than **four** weeks after you've handed in all copies to the examination office, either directly or through the SIZ.

8. THE DEFENSE

For many, the Master's defense is the final hurdle to completing their degree. Depending on your predilection, you could view this as the lesser of two evils, or as jumping from the frying pan into the fire...

In order to give your defense, you must have received a least a pass (4.0 grade) for the written part.

■ Timeline

The defense must take place three months after the grade of your written part has been published. You have a right to know when your defense will be three weeks after the grade has been published.

In general, you won't know your grade for the written part until after your defense (however, of course, you'll know that you at least passed that part if you've been asked to defend!) Usually, your defense will take place around **three weeks after you've handed in your written part.** However, this is not always the case. The date will be fixed by both your supervisors, usually also in agreement with you.

Absences

If your main supervisor is unable to attend your defense at the original date and/or time agreed on, you'll be asked beforehand whether you're still willing to proceed with your defense with a substitute supervisor. You're within your rights to decline this offer.

If you or your main supervisor can't be physically present, there's always the option of giving your defense via Skype. However, this is a matter that would have to be discussed and agreed upon by your supervisor(s).

■ Your audience

As well as your supervisors, you're allowed to invite friends and/or family along to your defense (space permitting). Some people find having familiar faces present comforting; others don't. Usually, you'll be able to decide who else is present. However, if you're defending as part of, for example, a colloquium, you probably won't be able to pick and choose who attends.

Time allotted

For your defense, you'll generally have between **15 and 20 minutes** to present (but make sure you double check this with your supervisor(s)). As this isn't much time, you should aim to concentrate on your **methodology** and **findings**.

A sample outline might look something like this:

- goal/objective of the research: 2-3 minutes
- literature review/theoretical framework: 3-4 minutes

- methodology: 5-6 minutes
- important findings: 5-6 minutes
- recommendations: 2-3 minutes

Be careful not to go over the time limit: your supervisors will time you!

Presentation slides

As with all PowerPoint presentations, you should be wary of a number of main issues when creating your slides.

- Only include keywords or phrases on your slides. *Don't* use full sentences.
- Graphs and diagrams can help you to show information in a more interesting and succinct manner, but make sure you give your audience enough time to digest the information properly. And, of course, label diagrams correctly and cite any sources.
- ▶ Be consistent with the formatting and style of your slides.
- Don't forget to include sources for any literature, diagrams, tables, figures and/or images you used.

More detailed guidance on creating a PowerPoint presentation can be found in "**Tips** for creating an effective PowerPoint presentation" in the UHOH AGRAR Academic Writing Aid Series.

The contents

Below are a few main points to consider when preparing the contents of your slides.

- ► Justify your research and results: you need to explain to your audience how the research you carried out over the past six months (or undoubtedly more) adds to your field. But, more importantly, you need to be able to justify the conclusions you came up with in the end.
- Make your talk flow: you can't include everything you wrote in your thesis in your presentation, but what you choose to include in your slides should create a "story".
- ▶ Be comfortable with what you know: this can be easier said than done. However, remember: this is *your* research and these are *your* results. Therefore, in this respect, you know more than even your supervisors.

Presentation practicing tips

Everybody has their own way of working when preparing for a presentation, but here are a few fundamental tips to bear in mind.

- Make sure to practice, practice, practice...You shouldn't know your material word for word, but you should be able to give a presentation that flows easily and coherently.
- Give yourself enough time to integrate any feedback. If you practice in front of friends the night before, you're not giving yourself enough time to modify your slides or change what you want to say.
- ▶ If you find you need help remembering what it is you want to say, prepare

notes or cue cards. If the latter, number them in case you drop them.

- Brainstorm possible questions. Present in front of friends and get them to ask you questions.
- ► If possible, attend other Master's defenses to get an idea of how and what questions are asked.

More detailed guidance on how to present can be found in "**Tips for presenting**" in the UHOH AGRAR Academic Writing Aid Series.

What to wear

You're about to try and prove your scholarly worth by defending your thesis, so it's best to also look the part. Attempt to look professional: think job interview professional. But, of course, make sure you feel comfortable as well: you don't need to put yourself under additional stress by an annoying tie or tight fitting kitten heels.

Pre-presentation and presentation nerves

Some people love the lime light; others try to avoid it at all costs. If you're in the latter group, below are a few ways to help yourself calm those pre- and during presentation jitters.

- Remember: it's totally normal to feel nervous. Don't berate yourself for how you feel.
- Make sure you're fed and watered. Bring in a glass or bottle of water.
- Know in advance the little details: where the room is that you'll be giving your defense, if you'll be provided with a laptop or need to bring your own, etc. This will allow you to concentrate on the most important part: the presentation itself.
- Arrive at the room at least 15 minutes in advance. This will give you time to get used to your surroundings.
- Don't underestimate the power of breathing!
- Once you start, slow down. Take a breath before starting each slide.
- It might help to have a timer or clock in front of you to keep a check of the time. On the other hand, it might not. Decide beforehand what works best for you.

Question period

Your presentation will be followed by **15 to 20 minutes** of questions.

- Listen and understand the question. This may seem like obvious advice, but when your brain is working on overdrive it can be easy to misinterpret what you're being asked. If necessary, ask them to repeat the question.
- ► Take time to gather your thoughts. It's fine to take a pause, ask them to repeat the question, and/or take a sip of water.
- Keep your answer focused. Don't simply spout out as much information on the general area as possible.
- ► You might get a question that's somewhat removed from your research. If you don't know the answer, it's okay. If you can, try and speculate. You

can even jot it down and tell your supervisors that you'll get back to them with the answer later...

- Avoid:
 - answering the question you wish you'd got as opposed to the question you did
 - becoming defensive if put on the spot
 - trying to bluff your way out of an answer
 - Iying
- If anything, remember: even if you perform dismally at your defense, you've already completed and passed the main part your written thesis. This is in the bag, and can't be repealed.

More detailed guidance on the questions and answers session can be found in "**Tips for dealing with questions and answers**" in the UHOH AGRAR Academic Writing Aid series.

Grading

After the defense process is complete, you'll be asked to leave the room so that your supervisors can discuss your performance. Your final grade – so, the grade for the written *and* the oral part – is usually given to you in person after this deliberation.

Your overall grade will be determined by the **average of both grades** (the written part being three times that of the oral part).

9. ...AND FINALLY

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This chapter includes a few additional points to consider once you've handed in your Master's thesis.

■ Should you fail

If you fail, you'll have the opportunity to try one more time. You'll need to register a new topic **within four weeks of your fail being announced.** This isn't much time, so if you think there's a high chance you'll fail – or know that you will – start considering this new topic as soon as possible.

■ Certificate and transcript

If you've completed all components of your Master's degree, you should receive your Master's certificate and transcript three to four weeks after finding out you've passed. You'll receive an email from the SIZ asking you to come in and double check that all details on the certificate and transcript are correct. If they are, you'll get your degree certificate, transcript of records, and diploma supplement there and then. If not, you'll need to wait a little longer for the corrected version, and will be asked to come in again by the SIZ. It's also possible to receive your certificate in the post by registered mail.

■ Graduation ceremony

The Hohenheim graduation ceremony takes place once a year at the end of October. This is for students who have finished **all their modules and their thesis.** During the ceremony, graduates are called on stage to receive an (unofficial) certificate. You can attend even if you haven't graduated, but you'll need to buy a ticket (which costs $5 \in$). Needless to say, it's free for graduates. However, if you want to invite any friends or family, they'll also have to purchase a ticket.

For more information on the graduation ceremony, including ticket inquiries, contact either Katrin Winkler (<u>katrin.winkler@uni-hohenheim.de</u>) or Kerstin Hoffbauer (<u>kerstin.hoffbauer@uni-hohenheim.de</u>).

Exmatriculation

Once you've completed your Master's degree, you'll be exmatriculated the following semester. You'll receive **the blue letter of exmatriculation** from the university a few months after receiving your certificate and transcript. The procedure of exmatriculation is somewhat hazy. For instance, if you defend at the end of a semester, although technically you've finished, due to the processing of your certificate, etc., you can remain a student in the following semester. However, you can apply for a refund for this semester.

10. OTHER THESIS GUIDELINES, MODULES AND WORKSHOPS

This chapter provides you links to with a few other thesis guidelines available online, as well as modules and workshops you could consider if you need extra guidance.

Thesis guidelines

There are already a number of Master's thesis guidelines available that have been created by numerous Hohenheim institutes in English. If your institute hasn't produced one (or it's very outdated), don't forget to ask your supervisor(s) whether there are specific guidelines in place that you should follow.

- Dr. Ahmad Manschadi (2001) "Guidelines for writing a Master thesis" Institute for Plant Production and Agroecology of the Tropics and Subtropics (380) https://www.uni-hohenheim.de/www380/all/Guidelines MasterThesis.pdf
- Prof. Andreas Fangmeier (2006) "How to write a thesis" Institute of Landscape and Plant Ecology (320) <u>https://www.uni-hohenheim.de/fangmeier/How to write a thesis.pdf</u>
- Prof. Stephan Dabbert (2008) "Tips and tricks for preparing a scientific thesis" Department of Farm Management (410a) <u>https://www.uni-hohenheim.de/i410a/diplom/tipps_tricks_en.pdf</u>

Prof. Jochim Sauerborn and Dr. Anna Treydte (2012) "Guidelines for writing a Master (Bachelor) thesis"

Agroecology in the Tropics and Subtropics (380b) <u>https://www.uni-</u> <u>hohenheim.de/qisserver/rds?state=medialoader&objectid=6457&application=l</u> <u>sf</u>

No author (2014) "Master thesis guide for the EnvEuro programme: student guide 2014-2015"

Environmental Science - Soil, Water and Biodiversity http://enveuro.eu/files/Master Thesis Guide 2014-2015.pdf

Sabine Zikeli, Gabriele Klumpp and Kerstin Hoffbauer [University of Hohenheim authors] (2015) "EUR-Organic Master thesis guide"

Double degree MSc programme Organic Agriculture and Food Systems <u>http://www.eur-organic.eu/fileadmin/einrichtungen/typo3-organic/EUR-</u> <u>Organic Masters Thesis Guide final ul.pdf</u>

No author (2015) "Principles of preparing a Bachelor or Master thesis" Department of Farm Management (410a) <u>https://www.uni-hohenheim.de/i410a/diplom/index3.htm</u> No author (n.d.) "Recommendations for writing a Master's thesis at the Faculty of Natural Sciences"

Faculty of Natural Sciences <u>https://natur.uni-hohenheim.de/fileadmin/einrichtungen/natur/02-</u> <u>Texte/Empfehlung Abfassen Masterarb</u>eit en.pdf

Modules

Below is a list of modules aimed at helping students with academic writing and research. Of course, modules are subject to change, so always double check online if a module is still being offered. And bear in mind that you'll also need to ascertain the type of module it is (i.e., blocked, unblocked, compulsory, elective, semi-elective) and if there are any prerequisites attached to it. The contents provided for each module is taken from the module's webpage.

Module: Introduction in Microbiological and Enzymatic Methods (1502-503)

Main lecturers: Prof. Lutz Fischer, Prof. Herbert Schmidt, Dr. Elisabeth Hauser, Dr. Sabine Lutz-Wahl and Dr. Agnes Weiß

Contents:

The students learn:

- sterile working techniques
- factorial growth kinetics
- determination of food ingredients (e.g., ethanol, glucose, fructose, sucrose, nitrate, citrate) by enzymatic methods
- determination of enzyme activities in food
- how to protocol experiments
- how to use statistical methods for analyzing experimental data

Website: <u>https://www.uni-hohenheim.de/module-catalogue/lecture/introduction-in-microbiological-and-enzymatic-</u> methods?&cHash=dc4c304b73667cd841e751445693b5e4&tx_modulkatalog_pi1[m

od id]=1873

Module: Literature Research (1502-501)

Main lecturers: Prof. Lutz Fischer and Prof. Herbert Schmidt

Contents:

- Introduction to literature research (Internet, library, interlibrary loan).
- Introduction to the analysis of statistical experimental data.
- Exemplary display of molecular-biological databases for finding new or improving known proteins.

Website: <u>https://www.uni-hohenheim.de/module-catalogue/lecture/literature-research-5</u>

Module: Mixed Methods in Agricultural Economics and Social Sciences (4903-440)

Main lecturer: Prof. Regina Birner

Contents:

This module will focus on the integration of quantitative and qualitative methods and tools. Students are trained in conducting mixed methods research in various socio-economic domains of agriculture. The module is, thus, complementing other methodological modules that focus either on quantitative or qualitative modules.

Website: <u>https://www.uni-hohenheim.de/modulkatalog/modul/mixed-methods-in-agricultural-economics-and-social-sciences-1</u>

Module: Scientific Publications (1502-502)

Main lecturers: Prof. Lutz Fischer and Prof. Herbert Schmidt

Contents:

Introduction, theory and practice of scientific publications and presentations.

Website: <u>https://www.uni-hohenheim.de/module-catalogue/lecture/scientific-publications-</u> <u>5?&cHash=d83f2a262a56d9687dd166e397978481&tx_modulkatalog_pi1[mod_id]=1</u> 873

Module: Scientific Writing and Reporting (1502-500)

Main lecturers: Prof. Lutz Fischer and Prof. Herbert Schmidt

Website: <u>https://www.uni-hohenheim.de/module-catalogue/module/scientific-writing-and-reporting-1</u>

Module: Qualitative Research Methods in Rural Development Studies (4903-470)

Main lecturer: Prof. Regina Birner

Content:

Participants in this module will get an insight into the current critical discourse of participatory research. They will get familiar with concepts and methods of participatory research with particular emphasis on applications in the field of agricultural and resource economics and in the social sciences. They will be enabled to assess in which research contexts participatory methods have their particular strengths and how they can be combined with conventional research methods. They will learn a range of qualitative methods for both data collection and analysis and will practice them in the field and with the computer.

Website: <u>https://www.uni-hohenheim.de/module-catalogue/module/qualitative-research-methods-in-rural-development-studies-3</u>

Module: Quantitative Methods in Economics (4901-470)

Main lecturers: Dr. Khalid Siddig, Prof. Manfred Zeller and Christine Bosch

Content:

This module targets students from all Master programs with a strong interest in empirical quantitative social science research. It is highly recommended to students in their third semester who plan to conduct such research for their Master thesis. A certain degree of overlap with module 4902-810 "Applied Econometrics" (compulsory for AgEcon students in their first semester) regarding linear regression is unavoidable because the module also targets students from other Master programs who may not have chosen "Applied Econometrics" in their first semester. However, due to its much broader range of topics, "Quantitative Methods in Economics" is a highly recommended module, especially for AgEcon students.

Website: <u>https://www.uni-hohenheim.de/modulkatalog/modul/quantitative-methods-in-economics-3</u>

■ Workshops

The Language Center (Sprachenzentrum (660)) at Hohenheim offers a workshop of three sessions over three days entitled "Academic Writing". It costs $20 \in$ for students. The workshop is described as follows:

This workshop will provide an overview of the main problems that non-native English speakers encounter when writing academic papers, letters, abstracts, and articles in English. The first two sessions will include examples of common grammatical errors when writing in English as well as general suggestions about how to structure sentences, paragraphs, and papers. Each session will include grammar, vocabulary, and correction exercises as well as in-class writing. The final, optional session will provide students with an opportunity to bring in and workshop their own writing with colleagues and the instructor.

For more information or to register for this course, the contact details of the Language Center are provided below.

Website: <u>https://spraz.uni-hohenheim.de/63429?&L=1</u> Email: <u>spraz@uni-hohenheim.de</u> Tel: 0711 459-23524 Address: Kirchnerstraße 3 (Euro-Forum)

■ Academic Writing Aid series

As well as these guidelines, a number of other helpful materials provided by the Academic Writing Aid service can be found online to assist you with your academic writing. Simply check out the link below:

https://agrar.uni-hohenheim.de/academic writing aid

11. USEFUL CONTACTS

181

Career Center

Kirchnerstr. 5, 70593 Stuttgart (also the building for Studierendenwerk Tübingen-Hohenheim)

Website (in German):

https://www.uni-hohenheim.de/institution/careercenter-hohenheim-8

Email (for appointments): career@uni-hohenheim.de

Tel: 0711 459-22066

Opening times:

Mon to Thurs: 9 - 11.30 am and 1 - 3.30 pm Fri: 9 am - 12 pm

Examinations Office (Prüfungsamt)

Schloss, Mittelbau, Room 035 (down the hallway from the SIZ) Website: <u>https://www.uni-hohenheim.de/78150?L=1</u> Email: <u>pa-an@verwaltung@uni-hohenheim.de</u> (for the subject, state your degree program and matriculation number)

Opening times:

Mon: 9 - 11 am Wed: 1.30 - 3.30 pm

For brief questions for the SIZ:

agricultural and natural sciences:

Tues: 10 - 11 am Fri: 11 am - 12 pm economics and social sciences: Wed: 10 - 11 am Thurs: 11 am - 12 pm

Language Center (Sprachencentrum)

Kirchnerstraße 3 (Euro-Forum) Website: <u>https://spraz.uni-hohenheim.de/63429?&L=1</u> Email: <u>spraz@uni-hohenheim.de</u> Tel: 0711 459-23524

Office of International Affairs (Akademisches Auslandsamt (AA))

Schloss, Kolleggangflügel (Westhof-Ost) (next to computer room 1/2) Website: <u>https://www.uni-hohenheim.de/institution/akademisches-auslandsamt-aa-8</u> Email: aaa@uni-hohenheim.de

Student Counselling Center (Zentrale Studienberatung (ZSB))

Schloss-Kolleggangflügel, Room 010 Website (in German): <u>https://www.uni-hohenheim.de/institution/zentrale-studienberatung-7</u> Tel: 0711 459-22064 Opening times (face-to-face):

Mon and Thurs: 2 - 4 pm Tues: 10 am - 12 pm

Telephone opening hours:

Mon and Thurs: 10 am - 12 pm Tues: 2 - 4 pm

Student Information Center (Studieninformationszentrum (SIZ))

Schloss, Mittelbau-Westflügel, Rooms 033/036 (look out for the SIZ flag close to computer room 1/2)

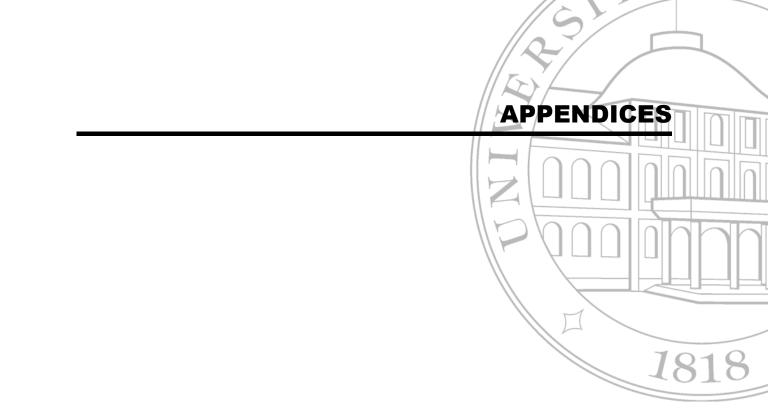
Website:

https://www.uni-hohenheim.de/institution/studieninformationszentrum-siz-as-4-6

Opening times:

Lecture period: Mon: 9 am - 4 pm Tues to Thurs: 9 am - 2 pm Fri: 9 am - 12 pm Lecture free period:

Mon to Thurs: 9 am - 1 pm Fri: 9 am - 12 pm



Appendix A

UNIVERSITÄT HOHENHEIM



Universitätsverwaltung Abteilung Studienangelegenheiten Prüfungsamt

Antrag auf Zulassung zur Master-Arbeit für <u>agrarwissenschaftliche</u> <u>Studiengänge</u> / Application for Allocation of a Master's thesis for agricultural science degree programs

	Natrikelnummer Registration number	Nachname, Vorname Name, First Name			
	Studiengang Degree program				
	-Mail-Adresse -mail-address			Telefon-Nr. Telephon number	
. lo ti	beantrage die Vergabe einer Master-Arbeit mit dem Thema: / I hereby apply for the allocation of a Master's esis with the topic:				
_					
. Z	ulassung als Gruppena	rbeit: / Registration as teamwo	ork: 🛛 ja / yes	□ nein / <i>no</i>	
). E	Betreuer/in: / Supervisor: Zweitgutachter/-in: / Second S		n: / Second Supervisor:		
A L	Bearbeitungsbeginn der Arbeit: Date work on the Master Starts:		Ende der 6-m Bearbeitungs <i>Deadline for s</i> months after	zeit: submission (six	
	Datum, <mark>Unterschrift des/</mark> Date, Student's Signatui		Datum, <u>Untersch</u> Date, Supervisor	rift des Betreuers/der Betreuerin	

- Bitte beachten Sie die Hinweise zur Master-Arbeit auf der Rückseite dieses Formulars - Please note the additional information and instructions regarding the Master 's thesis on the back side -

Hinweise zur Master-Arbeit

- 1. Die Master-Arbeit kann in Deutsch oder Englisch abgefasst werden. *The Master's thesis may be completed in German or English.*
- 2. Die Master-Arbeit kann von
 - Professorinnen und Professoren,
 - Hochschul- oder Privatdozentinnen und -dozenten,
 - Juniorprofessorinnen und Juniorprofessoren sowie von
 - akademischen Mitarbeiterinnen und Mitarbeitern mit Prüfungsbefugnis

der Universität Hohenheim ausgegeben und betreut werden.

Der Prüfungsausschuss kann genehmigen, dass die Master-Arbeit auch von einer Person ausgegeben wird, die nicht der Universität Hohenheim angehört. Diese Person muss ebenfalls die oben stehenden Kriterien erfüllen. Ein Betreuer der Fakultät Agrarwissenschaften muss mit dem Thema einverstanden sein. *The Master's thesis can be allocated and supervised by professors, junior professors, university lecturers (Privatdozenten), and academic staff with the right to examine. The examination's committee may give permission for the Master's thesis to be allocated be a person who is not a member of the University of Hohenheim. This person must also fulfil the criteria listed above. A supervisor from the Faculty of Agricultural Sciences must approve the topic.*

- 3. Die Arbeit wird grundsätzlich von zwei Prüfenden bewertet. Die Prüfenden sollen die betreuende Person der Master- Arbeit und eine weitere prüfungsberechtigte Person sein. Eine der beiden prüfenden Personen muss Professor/in sein. Die zweite prüfende Person muss prüfungsberechtigt sein, muss aber nicht der Universität Hohenheim angehören. *The Master's thesis and defense shall be assessed by two reviewers. The first reviewer should be the supervisor of the Master's thesis. One of the two reviewers must be a professor. The second reviewer must have the right to examine but does not need to be a member of the University of Hohenheim.*
- 4. Die Master-Arbeit ist spätestens drei Monate nach der letzten Prüfung anzumelden. Verstreicht diese Frist oder wird die Arbeit nicht bis zu Beginn des siebten Semesters angemeldet, gilt die Master-Arbeit als mit "nicht bestanden" bewertet. *The Master's thesis must be registered with the Examinations Office at the latest three months after the last exam was successfully completed or at the beginning of the seventh semester. If this deadline is missed, the Master's thesis will be graded with "fail".*

UNIVERSITÄT HOHENHEIM

ABTEILUNG FÜR STUDIENANGELEGENHEITEN Prüfungsamt



Formular für die Bescheinigung der Prüfungsunfähigkeit -Ärztliches Attest-

zur Vorlage beim Prüfungsamt der Universität Hohenheim

Erläuterung für den Arzt/die Ärztin:

Ihre ärztlichen Tatsachenfeststellungen sind Grundlage für die Beurteilung des Prüfungsamtes bzw. des Prüfungsausschusses, ob Prüfungsunfähigkeit vorliegt oder nicht. Die Beantwortung der Rechtsfrage, ob die nachgewiesene gesundheitliche Beeinträchtigung den Abbruch der Prüfung oder den Rücktritt von der Prüfung rechtfertigen kann, ist grundsätzlich nicht Aufgabe des Arztes; dies ist vielmehr letztlich und in eigener Verantwortung von der Prüfungsbehörde zu entscheiden.

Angaben zur untersuchten Person:

Nachname	Vorname	Geburtsdatum
Matrikelnummer	Abschluss	Studiengang

Erklärung des Arztes/der Ärztin:

Meine heutige Untersuchung zur Frage der Prüfungsunfähigkeit bei o.g. Patient/Patientin hat aus ärztlicher Sicht Folgendes ergeben:

1. Es liegen prüfungsrelevante Krankheitssymptome vor, die die psychische und/oder physische Leistungsfähigkeit deutlich einschränken, wie z.B. Bettlägerigkeit, Fieber, Schmerzen, Konzentrationsstörungen aufgrund der Einnahme von Medikamenten. 2. Es handelt sich nicht um Schwankungen in der Tagesform, Prüfungsstress, Prüfungsangst und ähnliches. (Dies sind im Sinne der Prüfungsunfähigkeit keine erheblichen Beeinträchtigungen) Aus meiner ärztlichen Sicht liegt eine erhebliche Beeinträchtigung des Leistungsvermögens gemäß Punkt 1 vor. Ich bestätige ausdrücklich, dass es sich nicht um eine, wie unter Punkt 2 beschriebene, minimale Einschränkung der Leistungsfähigkeit handelt. Dauer der Erkrankung vom ______bis _____ Datum, Praxisstempel, Unterschrift Zusätzliche Angabe für die Verlängerung der Bearbeitungszeit von Abschlussarbeiten (Bachelor-, Master-, Diplomarbeiten) bzw. Seminar- oder Hausarbeiten: Krankheitssymptome/Art der Leistungsminderung: _____Tage / Wochen / Monate. Ich befürworte eine Verlängerung der Bearbeitungszeit um _____ (z.B. wenn o.g. Patient/in die Arbeit eingeschränkt fortsetzen kann, so dass eine Verlängerung über den gesamten Krankheitszeitraum aus Gründen der Chancengleichheit unangemessen ist)

Declaration*

١,

Name, First name

Born on

Matriculation number

hereby declare on my honor that the attached declaration,

- Homework/Presentation
- Bachelor Thesis
- Master Thesis
- Diplom Thesis,

has been independently prepared, solely with the support of the listed literature references, and that no information has been presented that has not been officially acknowledged.

Supervisor Lecturer

Thesis topic

Semester

I declare, here within, that I have transferred the final digital text document (in the format doc, docx, odt, pdf, or rtf) to my mentoring supervisor and that the content and wording is entirely my own work. I am aware that the digital version of my document can and/or will be checked for plagiarism with the help of an analyses software program.

City, Date, Signature

^{*} This declaration is an independent compilation and attachment to your final document. Work without this declaration will not be accepted.