UNIVERSITÄT HOHENHEIM

Guidelines for Writing a Bachelor's or Master's Thesis at the Institute of Social Sciences in Agriculture (430)

Dept. of Communication and Advisory Services in Rural Areas (430a)
Dept. of Societal Transition and Agriculture (430b)
Dept. of Sustainable Use of Natural Resources (430c)

As of: September 2025

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Foreword

These guidelines are for Bachelor's and Master's students who would like to complete their final thesis at the Institute of Social Sciences in Agriculture. At the Institute, there are three departments: "Communication and Advisory Services in Rural Areas" (430a, Prof. Dr. Andrea Knierim), "Societal Transition and Agriculture" (430b, Prof. Dr. Claudia Bieling) and "Sustainable Use of Natural Resources" (430c, Prof. Dr. Verena Seufert). All departments pursue different concentrations and specific research interests but have the same scientific understanding and use very similar methodological approaches. In particular, the departments consider social scientific research to be obligated to the people on whom it focuses and believe that researchers have a social and ethical responsibility for their work. These guidelines provide the content and formal requirements for final theses and the Institute's offers for support for students. They conclude with information on ethical implications of scientific work.

Assistance in English with further information, examples, and possibilities of individual assistance can be found on the page of the "Academic Writing Aid" team of the Faculty of Agricultural Sciences at https://agrar.uni-hohenheim.de/academic_writing_aid.

1. What we expect from a Bachelor's thesis and a Master's thesis

Both Bachelor's and Master's candidates are to prove with their thesis[1] that they are capable of working on a specific topic using scientific methods and presenting the results. While Bachelor's students are to work on the defined problem with supervision, the Master's thesis requires independent work[2].

In the following section, further differences in regards to the expectations placed on both types of theses will be described. If you are unsure of anything, we encourage you to contact your supervisor at an early stage.

1.1 Content requirements

The guiding principle of a Bachelor's program is to provide a first university degree that qualifies the person to enter a profession. As a graduate, you should be able to produce relevant knowledge with supervision. This can also mean that you "gather" the knowledge. In the Bachelor's thesis you are therefore not expected to independently work on a previously unresearched topic and / or carry out extensive empirical studies, as usually both the necessary time and required previous knowledge are lacking.

In contrast, and in addition to career preparation, the purpose of the Master's programs is to educate qualified graduates for applied research, and the Master's programs are to convey specialized and highly qualified knowledge. Specifically for the Master's thesis, this means that it:

- contains a research concept that you created independently and that can be used to understand in detail how you divided the scientific research question into individual questions and

[1] In the examination regulations for Bachelor's and Master's theses, the term "thesis" is used to refer to the entire process including the written thesis and an oral presentation (defense) or only the written part of the work (thesis). In this document, we focus on the written part of the thesis.

[2] See general and specific examination regulations for Bachelor and Master Programs of University of Hohenheim, online at https://www.uni-hohenheim.de/en/examination-regulations

how you answer these systematically, reliably, and in a way that can be replicated with certain steps. You must deal with methodology in a refined way and describe why you apply which methods.
- is built upon a broad basis of academic literature. It should be clear that you have done intensive research, and that your work is connected to existing research findings in the subject.
- contain specialized research. You should not only use secondary literature (textbooks and introductory works, basic literature, dictionaries) that gives an overview and add easily accessible subject sources. Instead, you should carry out systematic research in relevant scientific databases in order to find current studies and expert articles from (international) scientific journals.
- includes substantial studies (e.g. empirical data gathering, extensive text analyses) you have conducted yourself. A differentiated analysis is important in this process. In addition, you should show how your findings relate to other academic studies in this area (discussion).

1.2 Formal requirements

The following is an overview of the most important formal aspects of Bachelor's and Master's theses. The formal requirements are regulated in the general as well as the program-specific examination regulations (see footnote 2, p. 2) and should be looked up there. There are many differences between the individual degree programs, and in particular for double-degree programs, special regulations have to be observed which may deviate from the overview outlined below.

Bachelor's thesis

- The Bachelor's thesis consists of a written part and, if the provisions of the special part of the examination regulations for the specific degree program require it, there is also an oral presentation (defense). If an oral presentation is required, at Institute 430 this means you will give a public presentation lasting around 20 minutes followed by a 10-20 minute discussion round.
- The thesis can also be admitted in the form of group work. If you and your fellow students would like to complete your thesis as a group, please contact the supervisor in advance.
- For the Bachelor's thesis, 12 credit points are assigned (of a total of 180 credit points necessary for the degree; that equals around 7% of the total number of credits).
- The time period for working on it is a maximum of three months after the topic has been assigned and can be extended by a maximum of 50% of the standard period given for working on it by the examination committee in exceptional cases upon reasoned request.
- The Bachelor's thesis may be selected and supervised by professors, university lecturers, privatdocents (*Privatdozent*innen*), junior professors, or academic staff with the right to examine in the Faculty of Agricultural Sciences. The supervision can also be carried out by other academic staff, but in these cases the responsibility for final evaluation remains with the department director. Supervision by a person who is not a member of the Faculty of Agricultural Sciences is also possible; for more information, please refer to the general and program-specific examination regulations.
- A Bachelor's thesis should be around 40 to 50 DIN-A4 pages, including references (maximum 2,000 characters per page).

Master's thesis

- The Master's thesis consists of a written part and, if the provisions of the special part of the examination regulations for the specific degree program require it, there is also an oral presentation and discussion (defense). At the Institute 430, the presentation is to last 20 minutes; it is followed by a discussion lasting around 30 minutes.
- For the Master's thesis, 30 credit points are assigned of a total of 120 credit points necessary for the degree (25% of the total number of credits).
- The time period for working on it is a maximum of six months after the topic has been assigned and can be extended by a maximum of three months by the examination committee in exceptional cases upon reasoned request.
- The Master's thesis must be selected and supervised by professors, university lecturers, privatdocents (*Privatdozent*innen*), junior professors, or academic staff members of the University of Hohenheim with the right to examine. The supervision can also be carried out by other academic staff, but in these cases the responsibility for final evaluation remains with the department director. With the prior permission of the responsible examination committee, it may also be assigned and supervised by a person who is not a member of the University of Hohenheim if the person has an equivalent qualification and if the topic is chosen with the approval of a professor, university lecturer, privatdocent (*Privatdozent*in*), junior professor, or academic staff member of the University of Hohenheim with the right to examine. In this case, the first examiner must belong to the University of Hohenheim; the person who is not a member of the University of Hohenheim may act as a second examiner. Please note the special regulations for supervision in double-degree programs.
- A Master's thesis should be around 60 to 80 pages, including references (maximum 2,000 characters per page).

2. Procedure

2.1 Preliminary remarks

Writing a research paper is like a journey: the traveler sets out with a destination, curious and open to what they will encounter along the way. In addition to good preparation and a certain repertoire of methods, creativity and flexibility are needed, because rarely does something go exactly according to plan. Writing a thesis also means personal growth: you will experience how you master difficult situations, and how you deal with stress and frustration. However, you will hopefully also have good encounters with various people and see others' ways of life, perceptions, and hopes. As a researcher, you need to be aware of this personal-professional balancing act, and as a human being you experience this as pain, disappointment, approval, or joy.

The following points are meant to guide you in planning and taking a structured approach so you can manage this challenging time well. In addition, we recommend staying in touch with your supervisor.

2.2 Familiarity with our approaches, participation in modules

For empirical theses, it is highly recommended to engage with social sciences empirical methods, be it with the help of a specific module or through self-study if an equivalent qualification has not

already been obtained with other courses. Your supervisor can recommend further literature on empirical research methods. To complete a Master's thesis at the Institute of Social Sciences in Agriculture, it is highly advisably that you have taken at least one module from the Institute 430.

2.3 Meetings, dates, and deadlines

The supervisor of the thesis at the Institute of Social Sciences in Agriculture is available in particular for questions about content. For formal questions, you should first read the guidelines contained here as well as the provisions of the valid examination regulations. In addition to proactive contact with the supervisor, great importance is placed on participating in your department's final thesis colloquium (see below). There are a very limited number of work stations available at the Institute for working on Master's theses. If you are interested, please speak with your supervisor.

In general, you should take part in the following dates and meetings with your supervisor; it is your task to contact your supervisor to set up the appointments accordingly. Special regulations, particularly around the commenting on the manuscript may apply for Double Degree programs.

- **Introductory discussion:** to develop an independent topic or shortly after taking on a suggested topic with the primary supervisor.
- **Approval of research proposal**: with the supervisor (and with the head of the department if the supervisor is someone other than the head). You should present an initial concept (precise goals and methodological approach, timeline, outline of the thesis).
- **Interim discussion:** with the supervisor after two months (Bachelor's thesis) or three to four months (Master's thesis), presentation of a final outline and a draft chapter, discussion of open questions.
- **Feedback on selected text sections** is possible successively in the course of your work, as part of your consultation with the supervisor. Your supervisor will not necessarily proofread or comment on the complete work!
- **Discussion in the end phase** (two to four weeks before submission): with the supervisor for review and clarifying final questions.
- **Colloquium presentation:** Students who are completing their final thesis at the Institute of Social Sciences in Agriculture should present in their department's colloquium at some point during the semester. The colloquium is not an examination. It offers the opportunity to present to staff and fellow students the background, research question, methods, and possibly initial findings of the thesis as well as to discuss problems and questions that arise while working.
- **Presentation and discussion (defense)** - if required: As a Bachelor's candidate, after submitting your written thesis you will present your work in about 20 minutes (usually with a PowerPoint presentation, but other formats are also welcome) so that the audience gains a good overview and knowledge of your key findings. Following that, you will answer questions about your thesis for around 10 minutes. As a Master's candidate, you should discuss the most important points of your work in a 20-minute presentation. In this time, it is not possible to present all aspects and details of your thesis. You must concentrate on the most essential points; in the following discussion, which lasts between 20 and 30 minutes, any remaining questions can be clarified. Here you have the opportunity to discuss critical points, but you can also emphasize and demonstrate the particular qualities of your work.

2.4 Change of title

Upon registering, you indicate a working title of your thesis. You can change this later on for the version you submit. For this, you need to hand in a form that you find on the website of the Examinations Office. The form needs to be signed by the department director and has to be handed in along with the thesis.

2.5 Submission

The thesis must be submitted to the Examinations Office. You have two options: We recommend you hand in digitally as a pdf. The Examinations Office will forward your thesis to the examiners, i.e. you can, but do not have to include them in the submission. Digital submission must occur on the indicated day before 2 pm. Alternatively, if it was agreed at the time of registration that your thesis will be handed in to the Examinations Office as a printed copy, then you can still be submitted or sent by post until 11:59 pm on the day of submission. In any case, all students at the departments 430a and 430b are expected to submit one thesis in bound form to the respective department's library. This can be done also later than submitting to the Examinations Office, if official submission is done digitally. If you submit a hard copy to the Examination Office, then you do not need an extra copy for the library.

2.6 Presenting your thesis on the department's website

For your Master's thesis, we ask you to present a brief description (abstract) for the department's website. We will take this abstract from your paper and put it on the website of the respective department. We assume that you consent to this; if you do not agree, please inform us.

2.7 Publications and conferences

Publication of the final thesis

For a Master's thesis, you may aim to publish the work, in particular if you used innovative methods or have important findings. This is very much appreciated! The publication should in general include those findings whose intellectual thoughts contributed to the success of the project (especially the supervisor). Details should be discussed with those people. A Bachelor's thesis might also be suitable for publication. Here it is likewise important to discuss your intentions with the primary supervisor.

Presentations

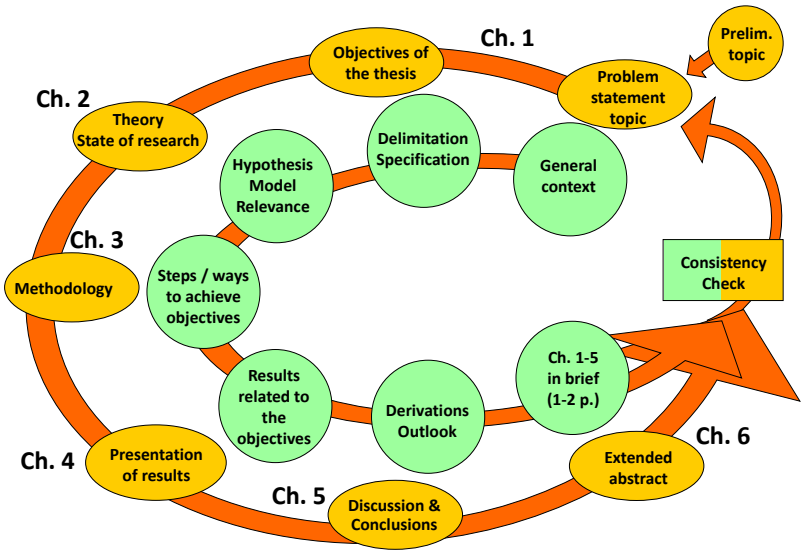
In particular those students who would like to pursue an academic career are encouraged to present their work at an academic conference. Here you should also discuss details with your supervisor.

3. Structure and outline of contents

3.1 Overview of the content structure

A research paper needs to be "well-rounded," and Figure 1 illustrates the links between the different steps (although this structure is not mandatory and deviations from it are possible). The starting point for a thesis is a topic or research question. This is contextualized and described in the statement of the problem (the "big picture"). With the objective, the object of study is delineated and the research questions are derived. This is followed by a theory / state of research chapter and a methods chapter or, in the case of a Bachelor's thesis, often only the methods chapter. The theory chapter presents the theories, concepts, and models and their relevance, provides an overview of the state of research, and, where appropriate, describes the hypotheses that give direction and depth to the investigation. In these steps, it is always necessary to check whether the various parts are consistent, i.e. whether, for example, the chosen theory actually fits the problem and is suitable for providing a helpful framework for the analysis.

Figure 1: Possible structure of an empirical research paper



The methods chapter describes how (by means of procedures and steps taken) the results were obtained. The presentation of the results is followed by their interpretation and discussion; these two steps should be clearly separated (separate chapters). The results provide the description of the answers (findings) to the objectives and research questions formulated at the beginning. Next, the interpretation and discussion place the results in a wider context and evaluate them, in particular by including comparisons with other studies; based on this, the conclusions are formulated. This chapter can conclude with an outlook. At the very end, the abstract is prepared. It is recommended that you carry out a consistency check: have all the questions been answered? Are all references to other parts of the thesis sufficiently presented in the text? Do the conclusions refer to the findings? Was the objective achieved and were there any unexpected results?

3.2 Outline elements of a thesis in detail

The following sections provide detailed guidance on the content of each chapter; Table 1 presents an overview, and Appendix 2 offers a checklist that can be used in particular for final editing. Depending on the topic, you can also use divisions other than the headlines listed here in order to structure your thesis in a logical way.

- **Cover / title page:** Degree program; thesis topic; name of the student and matriculation number; university, department, and location; name of the first and second examiner and of the supervisor (if other than first examiner); date of final submission (see template in Appendix 1).
- If applicable, **Foreword and Acknowledgements:** Notes on special conditions (external funding, inclusion of the work in a research project, etc.). The final thesis can include brief acknowledgements directed at the people and / or institutions who contributed to your work.
- **Table of contents:** List of all chapters and subchapters (up to a maximum of the third level of outline) with corresponding page numbers (cf. more detailed information in the section below on formal aspects)
- If applicable, **List of Abbreviations, Tables, and Figures:** If it cannot be assumed that abbreviations are known, they must be explained in a list of abbreviations; for tables and figures, a list can be left out if there are only a small number of them.

Table 1: Overview of the outline elements of a thesis

Title page
if applicable, **Foreword / Acknowledgements**
Table of Contents
if applicable, **List of abbreviations, Tables, and Figures**
1. Introduction (begins on page 1): Description of problem / debate; statement of objectives and research question(s); if applicable, formulation and justification of hypotheses (or in theory chapter); overview of following chapters
2. Theory / State of research (optional for Bachelor's thesis): Theoretical / conceptual background; results of already completed studies that are relevant for the research question; identification of gaps, contradictions; explanation of terms and concepts
3. Methods: Justification and description of process regarding data collection (literature work: e.g. inclusion / exclusion criteria for literature, keywords and databases used; empirical work: e.g. development of questionnaire, selection of interview partners, interview process) and data analysis (e.g. selected content analysis procedure); if applicable, description of the **investigation area** (separate chapter also possible, e.g. before methods)
4. Findings / Results: Factual, neutral description of the findings (i.e. empirical data or insights from literature research) in relation to the research question; use of figures and tables that are linked with the text
5. Discussion and conclusions: As a starting point, a very brief overview of the most important findings is possible (no new findings!); critical discussion of the findings (interpretation in regards to the research question); relation to other research (commonalities and differences and possible explanations for this, limits of comparability with literature researched) (optional or only very limited for Bachelor's thesis); conclusions; critical reflection of methods / difficulties in research process (optional for Bachelor's thesis); identification of still open / new questions
If applicable, **6. Outlook:** Derivations that do not relate directly to the research question(s) (e.g. implications for policies and practice), further research ideas
Extended **abstract** (max. 2 pages): Description of problem; objectives / hypothesis / research question(s); methods, key findings; key points of interpretation of the findings (discussion); conclusions
Bibliography / References: complete, standardized formatting, alphabetical order
if applicable, **Appendix**
Affidavit / Declaration of authorship (and if applicable, **use of generative AI**)

- **Introduction:** The introduction presents the problem and objective of your final thesis. The problem describes which question or gap in research you are focusing on and who (=which actors) is affected in what way by this problem or is interested in its solution. You should also explain how and why you chose this topic and outline the societal relevance. The topic is placed in the context of current societal and / or scientific debates and names the contributions to research and practice you would like to make by working on the topic. Hypotheses directly derived from the problem that will be studied can also be included (but do not have to be). In the objectives and research questions, you should delimit the problem to the concrete questions you want to answer with your thesis and justify this delimitation (e.g. with considerations of feasibility or the effort involved in the studies). In addition, the objectives should briefly and clearly define what the thesis is to achieve (that is, which findings are sought for which purposes and which kind of conclusions will be able to be drawn from them). Finally, if your paper deviates from the traditional structure, the introduction should provide an overview of the paper's structure (otherwise not necessary).
- **Theory / State of research:** This chapter explains the meaning, benefits, and application of relevant terms / concepts / theories. What is already known about the topic and what previous research contributes to answering your own research question(s) is described. Insights are grouped by topic, summarized in your own words, and presented in a logical order, whereby the relevance for your own question should always be clearly stated. If applicable, here you can also criticize theories and methods of earlier research in order to point out existing gaps or problems that your thesis seeks to close or solve. Based on the cited research results, you can present and justify your own hypotheses. You should always make sure to only pose hypotheses that you can actually evaluate in your own thesis. You can also develop your own research model (e.g. a blend of different research findings with a rationale as to why you think your model is appropriate) to use it as a structuring guide for the research.
- **Methods:** In this chapter, methods for collecting and analyzing data are described in detail, clearly, and in such a way that they can be replicated by others. In doing so, you should always refer to methodological subject literature. You should explain what method of study (observation, interview, experiment, literature analysis, etc.) and which study design (individual case study, longitudinal or cross-sectional study, field study, etc.) were chosen to achieve the objectives of the thesis, and you should justify why these were used – including the selection criteria and, very briefly, possible alternatives. Particularly relevant in qualitative work is a reflection on and examination of your role and perspective as a researcher. Any ethical considerations and precautions to protect the study participants should be described in this chapter (see section 6 on ethical aspects of empirical studies). The individual steps in carrying out the project (e.g. keywords and databases used for literature analysis; selection of interview partners; documentation of interviews) should be described as well as the analysis process used (content analysis procedures, statistical analyses, etc.).

  As a sub-chapter or in another, separate chapter, the **area under investigation** is presented, if there was one. In addition to an overview of general information (e.g. the geographical position, geology, soils and climate, history of use), information relevant for the topic should be described in more detail, in particular the social units on which the thesis focuses (sociodemographic characteristics, etc.).

- **Findings / results:** Here findings that provide answers to the research question(s) are shown in a factual, logical order. The questions thus also provide a good way of structuring this part of the thesis. Another way to structure the results may be by using the research model or conceptual framework. Findings that arise from the study methods are only presented here, not discussed (that is, not linked to other literature or presented in the context of your own thoughts like "interestingly, ..."!). Usually it makes sense to present the findings with the help of tables and figures; key quotes from interviews are often useful as well. Pictures should only be added if they give additional information that cannot otherwise be clearly shown. Tables or figures should be self-explanatory, but an overview of them needs to be provided in text; simply stating "The results are presented in Table / Figure XY" is not sufficient. In no case should every number in the table and every bar in a graph be explained; rather, the reader should be guided to the central findings. Findings that are of secondary importance should be added as an appendix. To keep the number of tables and figures manageable, it is advisable to combine several statements in one figure or table (e.g. if work was carried out in different regions, each region can be listed in one column when presenting the demographic data).
- **Discussion and conclusions:** The discussion may start with a very brief overview of the most important findings, in the sense of a starting point (but does not present any new findings; without exception, these must all be presented in the findings section). This is followed by a critical handling of the findings (content discussion). The originally posed research question(s) thereby offer the basic structure for interpreting the results. Besides your own critical discussion, you should make references to the literature, that is, explain how your findings relate to other studies and theoretical approaches: Are there similarities? To what could possible differences between your findings and those in the literature be attributed? To what extent do your findings add to existing knowledge, to what extent can new lines of research be derived from your findings? As an additional part, a critical reflection of the selected methods is desirable (methodological discussion). Here you should explain how you assess the methodological quality of the work as well as any problems in the research process and the effects on the results – how reliable are the findings, how high is their validity (methodologically justified), generalizability, and significance? Methodological difficulties and limitations should not necessarily be seen as deficits; instead, the open, deliberate, and differentiated handling of these typical aspects of scientific work are a key criterion for high-quality research. The discussion ends in brief and concise conclusions that arise regarding the research question(s). You can also treat the discussion and the conclusion in separate chapters – as you see fit.
- **Outlook**, if applicable: In this optional chapter, you can formulate conclusions that go beyond the core research question, for example recommendations for policies or practice. Completely new questions or methodological ideas that arise from the work could also be discussed in this section. You should make sure that you repeat neither the statements you made in the discussion nor the summary here.
- **Extended abstract** (can be before the introduction or at the end of the paper; about one page, maximum two pages): The abstract / summary should briefly reflect the entire thesis. You should therefore write it as the very last step of your thesis. In a few sentences, you should list the following points: Initial background and problem, objectives / hypotheses / research question(s), methods, most important findings, evaluation of the findings in relation to the research

question(s) (discussion), and conclusions. A summary does not include any new quotes, examples, or citations / references.

- **Bibliography / References:** Listing the cited works with the complete biographical data is done standardly in alphabetical order using the last name (see chapter "Citing Correctly").
- **Appendix**, if applicable: In the appendix, important information for the thesis should be included, for example focus group discussion guidelines or questionnaires. In addition, an overview of the individual data collected and / or more in-depth or explanatory material can be included, usually in the form of overview tables or figures. A reference to the appendix parts should be included in the main text (e.g. in the methodology or findings chapter).
- **Affidavit / Declaration of authorship and, if applicable, use of AI:** These are included on separate pages, using the templates provided by the Examinations Office; for AI template see Chapter 5.4.

3.3 Aspects particular to a Bachelor's thesis

- **Theory / State of research:** Whether it makes sense to have a separate chapter on theoretical aspects or the state of research is something you should discuss with your supervisor. Usually, a detailed elaboration is not necessary and can be discussed in the introduction; if this is not seen as sensible due to the complicated subject matter, then the description should be brief.
- **Methods:** A Bachelor's thesis can / should choose a less complex methodological approach than a Master's thesis; however, the explanation of these methods (why what was done and how) should be just as systematic, transparent, and replicable. The guidelines described above are therefore also applied to a Bachelor's thesis.

3.4 Aspects particular to a thesis based on a literature review

- **Introduction:** This section of your work places your research question(s) in the context of the existing research and points out these studies. To do this, you must explain the most important definitions, theories, and models from the literature as well as relevant research results that serve as the bases for the specific question(s) in your thesis; a more in-depth analysis of the literature does not need to be done here, however.
- **Theory / State of research:** In a literature-review thesis, the chapter "State of Research" is not included, as the insights from the literature and their evaluation make up the results of the thesis. However, concepts should be defined, and important previous research findings in the introduction should be used to derive your own research question(s) and hypothesis (cf. information on the chapter "Introduction").
- **Methods:** This chapter includes information about the type of literature that you used: Books, peer-reviewed articles, so-called "gray" literature (documents that were not widely published), media reports, or internet-based materials. In addition, the methods in searching for and selecting literature are described. The PRISMA guidelines and flowchart serve as a good example (but also other approaches are possible): Databases, search engines, and keywords that were used, timeframe in which the search was conducted, as well as the number of results that were found and selected. The criteria for inclusion and exclusion according to which you drew sources for working on your research question(s) should also be described here (e.g.

focus on certain time period or group of subjects). A PRISMA flowchart can be helpful. In addition, the data analysis process needs to be explained as well.

- **Findings/ Results:** Here, the studies chosen are described in more detail and set in relation to one another in consideration of the research question(s). Since a literature thesis by nature has no empirical elements, it is expected that the various topics are handled particularly thoroughly and critically and that there is a logical development of arguments. Your own contribution is made, among other things, by structuring the material for the presentation of results; here, instead of classical procedures (e.g. from the general to the specific, along the emergence over time), you can choose to link theory and practical cases or methodological, spatial and other conceptual differentiation criteria.

4. Formal guidelines

In the following, we compile the most important formal aspects that you should implement in your work. Please refer to Appendix 3 for further formal guidance, which is meant only to be additional recommendations (but not binding, as the following points).

- **Layout / Formatting:** The layout of the paper should be clear and consistent to aid the flow of reading. It is imperative that you decide on a single formatting system from the beginning of the paper and use it for the entire thesis (e.g., no different fonts for elements of the same type, no switching between justified margins and 'ragged' margins, consistent spacing between paragraphs). We recommend working with format templates that can be defined in word processing programs. With format templates, tables of contents and lists of tables and figures can be automatically generated and continually updated. This gives an overview of the entire thesis and saves a lot of time and work in the end phase. Before submitting your thesis, however, you should check the automatically generated table of contents and lists for completeness and correctness.
- **Outline levels:** For each outline level (headings, but also lists with bullet points), there must be at least two elements (rule: no first without a second). This means: No "1.1. Heading xy" without a "1.2. Heading yz"! Do not have a list with a single bullet point!
- **Headings:** Chapter headings should be separated from the body text by special formatting (larger font, boldface, underlining) and numbered for a maximum of three levels (i.e. 1.1.1, but not 1.1.1.1.). Please note the regulations for numbering the various heading levels: The headings of the foreword / acknowledgements, table of contents, other lists (figures, tables, abbreviations), extended abstract, bibliography, and appendix are not numbered.
- **Table of contents:** In the table of contents, include a maximum of three levels of headings; depending on the scope, you may want to limit yourself to two. The presentation of the different parts of the paper must be handled in a consistent way (i.e. do not give headings up to the third level for the results section, but only up to the second level for the theory section). The page numbers (Roman and Arabic numerals, see below) must be listed in each case; for the appendix, it is sufficient to include the page number of the first page of the appendix (in the case of a very extensive appendix, it is recommended that you include an additional table of contents on this first page of the appendix).
- **Page numbering:** The page numbers of the cover page, acknowledgements, table of contents, and other lists as well as the summary is done in Roman numerals (that is, I, II, III, IV,

V, etc.). On the title page, no page number is shown. The first page of the introduction is numbered with the (Arabic) page number 1 and then continued without interruption; another format should only be used in the annex (Roman numerals, Appendix/1, or similar).

- **Emphasis:** Emphases in the text (bold, underlining) should be used sparingly; italics are only for foreign-language terms that are not translated or for Latin species names. Do not use different colors in body text.
- **Tables and figures:** Figures (this includes all graphical elements such as photographs, charts, and diagrams) and tables (all elements with a structure consisting of rows and columns) should be labelled; in each case "Figure" or "Fig." or "Table" or "Tab." should be used with consecutive numbering, separate for tables and figures, and a concise explanation of the content, including any references (e.g. "Fig. 3: Model of sustainability transformations according to Meadows (1999)"). A table label is above the table, a figure label is below the figure. Tables and figures must be self-explanatory, i.e. understandable without the body text. In the body text, a specific reference should be included for each table or figure (e.g. "... there are three influencing factors (see Fig. 1)" or "As shown in Table 3, ...", not "As shown in the following table").
- **Style:** Use precise and factual language and avoid complicated sentence constructions. The first person ("I have...") should be reserved to occasions when you are discussing facts tailored to yourself, i.e. when describing your own understanding of your role, or to avoid lengthy passive expressions, e.g. when explaining work procedures in the methods section. Correct spelling as well as punctuation contribute significantly to the reader being able to understand the text easily, so great emphasis should be placed on this during the drafting process. We recommend using the automatic review or proofreading functions in the common word processing programs. For final theses, as well as in spoken language, you should make sure you use language that is inclusive with regard to gender, age, ethnicity, and other aspects that may be relevant in your work. There are many online guides for using inclusive language in academic writing in English, e.g. provided by Sage Journals.
- **Abbreviations:** Abbreviations should be used sparingly. The first time the full term is mentioned, the abbreviation after the term should be introduced in parentheses. From that point on, use only the abbreviation throughout your text.

5. Complete and correct referencing

Identifying and using reliable sources is an essential pillar of all academic work. The scope and quality of the sources indicate the depth of your engagement with the topic and your consideration of the state of knowledge, allowing readers to follow your argument. With this in mind, we recommend thorough source research, giving priority to reading printed or electronically available books and peer-reviewed articles on your topic first. Internet sources can be used as long as they are the most robust and high-quality reference for your statements; however, you should generally not refer to very general internet sources such as Wikipedia.

Citing refers to the obligation to clearly mark textual references and others' thoughts in your own text. One differentiates between word-for-word quoting that shows a text passage exactly as in the original, and paraphrasing. The latter refers to a summary in your own words of one or more

passages in another text – this also requires correct citations! Proper citation means providing all the information necessary to clearly identify and locate the sources.

5.1 Citing style

There are several citation styles in use in academia, but they share some basic commonalities, which are listed below. You are free to use any common academic citation style within these basic rules, but you must apply it consistently and uniformly throughout the paper.

Citations in the text

The following guidelines must be observed in order to mark sources in the text:

- Use the author name / year system.
- Sources can be given at the end of the sentence or part of the sentence that includes the cited information. We recommend including the source directly (e.g. "...(Müller 1985)"); alternatively, you can work with footnotes. It is not sufficient to list all sources used in a paragraph at the end of that paragraph.
- For especially important quotes, the author can be emphasized by including their name in the text: e.g. "... Schreiber (1981) argues that..."
- If institutions are cited, it often makes sense to use an abbreviation: e.g. "In Baden-Württemberg, the emission concentrations... (MELUF 1986)." In the references list it should be written as follows: "MELUF (Ministerium für Ernährung, Landwirtschaft und Forsten Baden-Württemberg) 1986 ..."
- If several works are cited at the end of a sentence, then the list should be ordered first chronologically and, within a year, alphabetically. References to different authors are separated by a semi-colon: e.g. "... (Müller 1967a; Schreiber 1982; Zivko 1982a; Adam and Evans 1986)."
- If different authors are cited who have the same last name, then the first letter of the first name must be included: e.g. "... (Müllerknecht G. 1982; Müllerknecht P. 1979)."
- If a work is from two authors, both names are cited and connected by the word "and" or "&": e.g. "... (Müller and Krause 1986)."
- If a work has more than two authors, then only the first author is named and the others are referred to with the abbreviation "et al.": e.g. "... (Müller et al. 1984)." In the references list, all authors are then named. In the case of more than five persons, the number may be restricted to five; omissions must then be indicated, for example by inserting "...".
- If the same author published several works in one year, then the individual works are marked with "a," "b," etc. directly after the year. The text first cited in the work receives the "a," the next cited is "b," etc.: e.g. "... (Müller 1967a)."
- Word-for-word / direct quotes make sense if it is a particularly well-worded statement or if it is particularly original. They must be put in quotation marks and quoted exactly. In this case, the page number should be given after the year; it may be delimited by a colon or a comma, and may also be preceded by a "p.": e.g. "As Müller (1967: 46) noted, "pig farming was incredibly important."

Bibliography / References list

The following guidelines should be used when listing the sources in the bibliography:

- The bibliography must list all sources you mention in the text, but must not include sources that are not mentioned in the text.
- All information must be complete and thus enable the source to be clearly identified and located. DOI numbers may be included but are not required (if you choose to use them, you must include them consistently).
- References must be formatted consistently and be in alphabetical order. Include all source citations in a single reference list; do not subdivide by types of sources (e.g., by compiling internet sources in a separate index). Sources of illustrations are also included in the general references list.
- Works from the same author from different years are listed in chronological ascending order according to publication year. Those publications are cited first that they wrote alone followed by those that were written with a secondary author. The sources are then ordered alphabetically according to the second author's name. Finally, once again in chronological and alphabetical order, come the publications written with more than one other author.
- Authors with the same last name are ordered according to their first name, that is, first Müller G. with all of her works, then Müller P. with all of his works. If the "a," "b," "c," system was used within the text, then they are listed here in the corresponding order.
- Institutions are often abbreviated in the text (e.g. "MELUF 1986"); the full name should then also be given in the bibliography, for example: "MELUF (Ministerium für Ernährung, Landwirtschaft und Forsten Baden-Württemberg) 1986".
- In English-language publications, the initial letters of nouns are capitalized in names of journals, titles of books, and reports (but not in titles of journal articles and book chapters), e.g., "The Science and Practice of Landscape Stewardship" as a book title or name of a journal, but "The science and practice of landscape stewardship" as the title of a book chapter or journal article). For publications in other languages (e.g., German), the capitals are used as done in the respective publication.
- Journals, book series, etc. can be written as abbreviations, e.g. "Ecol Econom" for the journal "Ecological Economics". Here you should follow the existing practice; often the abbreviations are indicated on the publications themselves. Please only use common and transparent abbreviations.
- If no other source is available, quotations from the internet can also be used. In the bibliography, it is important to include the web address, provider, access date, and name of the author of the text cited.

In Appendix 4 you will find citation examples for the individual source categories; please note that individual stylistic specifications such as the use of normal font, capital letters, or small caps for author names are not mandatory but can be adapted as desired.

5.2 Reference management programs

It is recommended to use reference management programs, especially for a Master's thesis or literature review thesis. Reference management programs offer support in organizing sources and make it possible to automatically generate a references list. Using literature management programs can save a lot of time, as source references can be imported automatically and indexes

and formatting can be edited with just a few mouse clicks. However, a careful check for errors is indispensable at the latest before submission.

The reference management program Citavi is available free of charge for students of the University of Hohenheim. Zotero offers a popular open source alternative for reference management. Mendeley is another reference management system that can also be used free of charge with a single license. The Communication, Information, and Media Center (KIM) offers free training courses on Citavi and Zotero as well as individual advice and support. Further information and also links to a comparison of various free and paid offers can be found at KIM as well.

5.3 Plagiarism

Students should be aware that submitting plagiarism is fraud and is not tolerated at the University of Hohenheim or anywhere else in the academic world. In the respective examination regulations for Bachelor's and Master's programs, plagiarism is defined as attempted cheating, and the final thesis will then be evaluated with "fail."[3] We reserve the right to check final theses for plagiarism using the software "Turnitin" and to grade theses as failed if plagiarism is found.

"Plagiarism" means passing off others' words as your own, that is, without the necessary citation of the original source. Plagiarism is also theft of words and intellectual property. This can take the most obvious form of "copy and paste" plagiarism in which often even spelling mistakes are copied, but also less visible forms of plagiarism such as translation plagiarism, so-called "shake and paste" plagiarism and "phrase patching" in which parts are taken from various sources and put together. Plagiarism also includes copying structures in which the plagiarist holds to other authors' order and structure of arguments without citing them.

5.4 Use of generative AI

The university acknowledges the opportunities and gains that come with use of generative AI in the context of learning, collecting and processing data, structuring and summarizing information etc. Students are encouraged to familiarize with the possibilities and the limitations of technologies such as Large language models (LLM) for the creation of scientific texts. You can find a position paper (Gimpel et al. 2023) and an overview of guidelines, recommendations and further links on the university website. Thus and first of all, the use of generative AI for your thesis is voluntary and your decision only; from the side of the institute, we are neutral to whether or not you apply digital tools in this frame. However, if you are using one or several tools, you are obliged to submit a **declaration on the use of generative AI systems** together with the declaration of originality.

6. Ethical aspects of empirical studies and individual interests

Although an empirical final thesis has a rather modest scope, it is still important that you and your supervisor consider together any ethical implications that people's participation in the study could have. Final theses that foresee direct data collection from human participants should include a declaration of the consideration of / holding to ethical principles during the research process (in the methodological part or the appendix). In the case of particularly sensitive studies, you should

[3] See general and specific examination regulations for Bachelor and Master Programs of University of Hohenheim, online at https://www.uni-hohenheim.de/en/examination-regulations

obtain the approval of the university's ethics committee (please discuss this with your supervisor). The approval of an ethics committee is also seen as a requirement by many academic journals for submitting publications.

In general, you should make sure that participants who are interviewed or observed cannot be harmed by the research project. Participants should know and understand the objectives of the project. In addition, they must give their explicit consent for participation, and they have the right to their personal data being handled confidentially. The EU General Data Protection Regulation (GDPR), which was introduced in 2018, specifies the requirements that must be observed.

If you conduct interviews or written surveys, voluntary, prior, and informed consent must be formulated in writing and agreed with the participants prior to data collection; this must be documented in writing for all participants. Various checklists and formulation aids can be found on the internet, but you will always have to adapt them to your project, depending on the type of research you are conducting (e.g. face-to-face interview, online survey with or without storage of the IP address) and how you want to use the data (e.g. verbatim quotes with / without identification of the person, evaluation only by you or in cooperation with external partners within a project). Therefore, we cannot offer you any standardized templates, but assume that you familiarize yourself with the topic of data protection, develop the measures required for your project in accordance with the GDPR, and discuss these with your supervisor.

In particular in research with especially disadvantaged and marginalized persons or groups, you should be very sensitive when dealing with the principles of consent and confidentiality. Besides the general requirements regarding participation being voluntary, participants to be informed, and data protection, here it is an ethical imperative not to objectify the participants as the "object" of the research but to "empower" them in the research process whenever possible. Ideally, this means that the participants can have a say in the conceptualization and execution of the research project. At the very least it means that the students have a responsibility to accurately and justly report the interests of the participants. You can ensure that this has been done by showing the participants the (interim) results or points on which you have doubts. Besides this, it might be necessary to anticipate situations that could mean (e.g. psychological) stress for the participants or the reporting of which – even if it is anonymized – could indirectly or unintentionally hurt the participants by stigmatizing them in the communities to which they belong.

If the research is commissioned by or carried out in cooperation with a party outside the university (private or public institutions, interest groups or even individual farmers, development projects, other research institutions, etc., referred to here as a cooperation partner), a written agreement on the particular interests should be made at the beginning. In this case, three parties are involved (student, cooperation partner, supervisor), who negotiate and present their interests in relation to the expected results and make them transparent in a written document. In addition to interests, responsibilities should also be recorded, e.g. with regard to supervision, use of resources, and use of the results.

7. Assessment

The criteria used by the Institute of Social Sciences in Agriculture for evaluating the written part of your final thesis are listed in Table 2. The table also gives information about the weighting of the individual criteria.

Table 2: Criteria for evaluating final theses

Content criteria	***Points***
Content quality of work on the topic and presentation • Distinct description of the research problem and objective • Suitability and comprehensibility of the chosen methods • Adequacy and correctness of methodological implementation and analyses • Quality of tables and figures • Quality of abstract	15
Engagement and depth of debate • Extent of engagement with the state of the art as well as the incorporation of theory • Scope of candidate's data collection • Depth of presentation and discussion of collected data (results, discussion) • Handling of difficulties that arose during the research process • Independence and degree of innovation	20
Clarity and argumentation • Coherence of the content structure; development of a stringent line of argument, especially with regard to objectives and research questions • Sensible delimitation and structuring of the subject matter • Clarity and logic of the argument • Degree of reflection and critical debate, nuance of argumentation	15
Formal criteria	
Layout and format • Consistent, clear layout that supports the reading process • Correct labelling and inclusion of tables and figures	3
Language and style • Appropriate, expressive, and precise style • Correct use of specialist terms • Correct spelling, punctuation, and grammar	5
Citation and sources • Correct use of the rules of academic citation in the text • Accurate and complete list of references	7
Total number of points	**65**

UNIVERSITÄT HOHENHEIM

Appendix

Appendix 1: Template title page

University of Hohenheim
Institute of Social Sciences in Agriculture
[Department]

[Title of thesis]

[Bachelor's thesis / Master's thesis] in the
Faculty of Agricultural Sciences

by

[Your Name]
[Your matriculation number]

submitted
in [Month Year]

First examiner: [Name]
Second examiner: [Name]
(If other than examiner: Supervisor: [Name])

Appendix 2: Checklist for final theses

Content aspects	
Extended abstract	▫ Are all main points concisely presented in a few sentences?
Introduction	▫ Is the problem clearly explained and cogently elaborated? ▫ Is there a logical and clear formulation of the objectives and research question(s)?
Theory / State of research (optional for Bachelor's thesis)	▫ Is relevant theoretical / conceptual background information and the state of current scientific knowledge presented?
Methods **(Investigation area)**	▫ Is the choice of methods justified? ▫ Is the methodological process presented in a way that is transparent, replicable, and complete? ▫ If applicable, is the investigation area described concisely?
Results / Findings	▫ Are the results described in depth, clearly, and factually? ▫ Are figures and tables used to support the presentation of findings?
Discussion **(Outlook)**	▫ Is reference made to the research questions? ▫ Is there an in-depth and nuanced discussion of the findings? ▫ Are references made to literature in the subject area (differences, similarities, expansions)? ▫ Are logical and relevant conclusions drawn?
Formal aspects	
Layout and format	▫ Is there a consistent, clear layout that supports the reading process? ▫ Are the table of contents and, if applicable, other lists correctly formatted? ▫ Are figures and tables meaningful, correctly designed, and linked to the text?
Language and style	▫ Is an appropriate and informative style used? ▫ Is proper spelling and punctuation used?
Literature and citations	▫ Are the rules of academic citation followed? ▫ Is the references list complete and consistently formatted?

Appendix 3: Additional formatting recommendations (not compulsory!)

Font type and size:	Arial 11 pt or Times New Roman 12 pt; for tables and figures: 10 pt
Line spacing:	1.2
Paragraph formatting:	Justified with end-of-line hyphenation
	Separate paragraphs with between 6 and 10 pt spacing; for blocked quotations (that is, quotes that go over several lines), all lines are indented.
Side margins:	Top, bottom, outside 2.5 cm each; inside 3.5 cm
Page numbers:	Numbering is done on the outer side. For two-sided printing, the front and back pages will need to be formatted accordingly.
Print:	Preferably double-sided (reduction of paper consumption!)

Appendix 4: Examples for the listing of different types of sources in the bibliography (formatting recommendations, not compulsory)

Journal articles

Gutzler, C., Helming, K., Balla, D., Dannowski, R., Deumlich, D., Glemnitz, M., Knierim, A., Mirschel, W., Nendel, C., Paul, C., Sieber, S., Stachow, U., Starick, A., Wieland, R., Wurbs, A., Zander, P. 2015. Agricultural land use changes – a scenario-based sustainability impact assessment for Brandenburg, Germany. Ecological Indicators 48: 505-517

Matthes, U., Bieling, C., Reeg, T., Oelke, M., Konold, W. 2014. Wie bewerten Akteure der Forst- und Holzwirtschaft den Klimawandel? Eine Untersuchung am Beispiel von Rheinland-Pfalz. Allgemeine Forst- und Jagdzeitung 105(3/4): 59-70

Books

Knierim, A., Baasch, S., Gottschick, M. (Eds.) 2013. Partizipation und Klimawandel: Ansprüche, Konzepte und Umsetzung. Oekom, München

Bellows, A.C., Valente, F.L.S., Lemke, S., Núnez Burbano de Lara, D. (Eds.) 2015. Gender, Nutrition and the Human Right to Adequate Food: Towards an Inclusive Framework. Routledge, New York

Chapters from books

Knierim, A. 2014. Stakeholder involvement for developing adaption innovations in rural areas: Examples from Berlin-Brandenburg. In: Prutsch, A., Grothmann, T., McCallum, S., Schauser, I., Swart, R. (Eds.): Climate Change Adaptation Manual: Lessons Learned from European and Other Industrialised Countries. Routledge, London/New York: 128-135

Höchtl, F., Bieling, C. 2013. Instrumente zur Erhaltung historischer Terrassenweinberge. In: Konold, W., Petit, C. (Eds.); Historische Terrassenweinberge: Baugeschichte, Wahrnehmung, Erhaltung. Bristol Stiftung, Zürich; Haupt, Bern: 301-330

Series, reports, expert statements, etc.

Gerster-Bentaya, M., Crozet, N. 2015. Transdisciplinarity and action research to address the complex issues of urban agriculture. Schriften der Gesellschaft für Wirtschafts- und Sozialwissenschaften des Landbaues e.V., Band 50. Landwirtschaftsverlag, Münster: 15-26

Unpublished works

Dhungel, S. 2014. Impact of Migration and Remittance on the Livelihoods of Smallholder Farmers in Nepal: A Study in Anekot Village in Kavrepalanchowk District. Unpublished. Master's thesis at the Dept. of Gender and Nutrition at the Univ. Hohenheim

Internet sources

Website (organization, database):
EEA (European Environment Agency) (2020). World Water Day: Turning to nature for solutions. Online at https://www.eea.europa.eu/highlights/world-water-day-turning-to (16 Nov 2020)

Online report, pdf document, or similar:
Daniel, S., Mittal, A. 2009. The great land grab. Rush for the world's farmland threatens food security of the poor. The Oakland Institute. Online at https://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/great-land-grab.pdf (20 May 2019)

Online newspaper article:
BZ (Badische Zeitung) 2020. Landwirten den Rücken stärken. Stühlingen issue dated 20 Nov 2020. Online at https://www.badische-zeitung.de/landwirten-den-ruecken-staerken--198139506.html (21 Nov 2020)

Blog post or comment:
Fischer, L. 2015: Art and Responsible Landscape Development. [Blog post] In: HERCULES project: Cultural Landscapes Blog. Online at http://www.hercules-landscapes.eu/blog.php (29 Sept 2015)

Video or audio:
Ebster, C. 2011. Die 7 Todsünden des wissenschaftlichen Schreibens. [YouTube Video] Online at http://www.youtube.com/watch?v=ZZm-8gPzHqI (8 Aug 2020)