#### Prof. Dr. Markus Nagler

#### Instructions for the preparation of Bachelor's/Master's theses

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#### **1** Sequence in the structure of the thesis

#### Title page

The title page should contain the following information:

- o The theme of the thesis
- o The title of the Bachelor's/Master's thesis
- Including "to obtain the degree of Master of Arts / Master of Science at the Faculty of Law and Economics of the Friedrich-Alexander University of Erlangen-Nuremberg" or "to obtain the degree of Bachelor of Arts / Bachelor of Science at the Faculty of Law and Economics of the Friedrich-Alexander University of Erlangen-Nuremberg".
- o Name, matriculation number
- o Adviser: Prof. Dr. Markus Nagler, Junior Professor for Quantitative Labor Economics
- o Supervisor
- o Date on which the Bachelor's/Master's thesis was completed.

#### Structure

The thesis should be preceded by an outline with corresponding page references. The outline should be subdivided and formulated in such a meaningful way that the common thread of the work is apparent. However, each bullet point should have a certain amount of content. It makes little sense to list 30 bullet points in a twenty-page paper. If you subdivide a point, there must be at least two sub-points, i.e., 1.1 is always followed by 1.2. The bullet points in the table of contents must correspond with the headings in the text.

All lists and, if applicable, the appendix and a list of appendices should also be listed in their order in the outline. Make sure that the pages are numbered consistently.

## List of abbreviations

Except for the usual abbreviations (etc., e.g., i.e., etc.,), all abbreviations that you use must be explained in a list of abbreviations and when they are first used. This also applies to abbreviations commonly used in economics or used in the bibliography. Likewise, you should list the names of journals if they are abbreviated.

## List of figures and tables, list of appendices

Figures and tables are also to be listed in a list of tables with the corresponding page number. The individual appendices should be listed in a list of appendices. The appendices should be numbered from A1 to A... and appear at least once in the text or in a footnote as a reference.

### Main text

The main text part of the thesis (without cover page, indices, tables and figures) should be about 25-30 pages for Bachelor's theses. Master's theses should be about 35-45 pages long. However, the content of the thesis is decisive for the grading.

The thesis should be formatted in a legible font with a size of 12 points and 1.5 line spacing. Approximately 2.5 cm margins should be left all around. Both Bachelor's and Master's theses can be written in German or English.

### Figures, tables and appendix

Please integrate tables and figures into the text; set them – as well as formulas and headings – off from the text with blank lines for separation.

## Affidavit

The affidavit must be attached to the Bachelor's/Master's thesis as the last page. It should follow this template:

"I, \_\_\_\_\_\_ (Name), student registration number:\_\_\_\_\_, hereby confirm that I completed the submitted work independently and without the unauthorized assistance of third parties and without the use of undisclosed and, in particular, unauthorized aids. This work has not been previously submitted in its current form or in a similar form to any other examination authorities and has not been accepted as part of an examination by any other examination authority. Where the wording has been taken from other people's work or ideas, this has been properly acknowledged and referenced. This also applies to drawings, sketches, diagrams and sources from the Internet.

In particular, I am aware that the use of artificial intelligence is forbidden unless its use an aid has been expressly permitted by the examiner. This applies in particular to such programs that could process the task of the examination or parts thereof instead of me, for example chatbots (such as ChatGPT) and other methods suitable for this purpose.

Furthermore, I am aware that working with others or by means of social or other media represents the unauthorized assistance of third parties within the above meaning, if group work is not expressly permitted. Each exchange of information with others during the examination, with the exception of examiners, persons authorized by them and invigilators, about the structure or contents of the examination or any other information such as sources is not permitted. The same applies to attempts to do so. Proofreading of the work by third parties with the aim of correcting linguistic deficiencies is permitted.

Any infringements of the above rules constitute fraud or attempted fraud and shall lead to the examination being graded "fail" ("nicht bestanden"). In the event of multiple or particularly drastic breaches of the rules, further sanctions may be imposed by the Examination Board (Prüfungsausschuss).

Place, Date

Signature"

## **2** References

Any use of ideas from others must be referenced. The sources must identifiable and verifiable.

The sources are to be cited either directly or indirectly. Both forms are to be referenced in the text using the short citation method. Citations according to the abbreviated citation method begin with the author's surname (without title and academic degree), are continued with the year of publication (several titles by the same author in one year are to be indicated by adding lower case letters) and concluded with the page number of the cited source. When indicating the page number, it should be noted whether only one passage is quoted (e.g., p. 29), whether the passage taken over also affects the following page of work (p.29 f.) or whether statements extend over several pages (p.26 ff.) In the case of references to a journal article, the page number is omitted in the text. Example: (Nagler et al., 2020)

If parts of the text are taken over verbatim (literal quotation), this is to be indicated as such by quotation marks in the text and the source is to be indicated in abbreviated form. Inverted commas appearing within the literal text shall be replaced by single ('). Omissions in a literal quotation are indicated by two dots ("...") if only one word is involved, otherwise by three dots ("..."). Missing references in a verbatim quotation are considered plagiarism.

Additions are to be identified as such, e.g., by brackets. Verbal or written information provided to the author by persons, companies or other institutions should be identified as such in the paper.

Each reference must be matched by a corresponding detailed citation in the bibliography. The thesis must contain a bibliography listing all references used and cited (demonstrably referenced in the text, in footnotes, in figures, tables or in the appendix). The references must be cited in such a way that it is possible to clearly identify the source. Use citation styles according to the standards of our profession. The references should be listed in alphabetical order of the author's name. If an author is represented more than once, the order is based on the year of publication (several titles by the same author in one year should be indicated by adding lower case letters, e.g. 2000b).

The requirements for a bibliography are: Accuracy (error-free information), completeness (all information required for the retrieval of sources), uniformity (maintaining the scheme), clarity (naming the authors in alphabetical order).

For the correct design of a bibliography, I recommend using a literature management programme (e.g., Citavi, JabRef).

# **3** Suggestions for content and style

Beyond these obligatory formal rules for your Bachelor's/Master's thesis, here are some tips for reading scientific articles as well as some comments on content and style.

## Tips for reading scientific articles

- First, check the suitability of the paper by screening it briefly (title, keywords, topicality, reading through the abstract). Also read through the introduction. A good introduction explains the content in an intuitive way.
- To assess the quality of an article, the journal's ranking can serve as a guide (and only as such)
  - Top 5 Journals: Econometrica, Quarterly Journal of Econometrics, Journal of Political Economy, American Economic Review, Review of Economic Studies
  - After that: American Economic Journals, Review of Economics and Statistics, Journal of the European Economic Association, Economic Journal, Journal of Labor Economics, Journal of Human Resources, Journal of Monetary Economics, Journal of Econometrics, etc.
  - There are many up-to-date rankings. I suggested starting with renowned rankings such as those of REPEC or Forschungsmonitoring (German).
- If an article is suitable, pay attention to the following points when dealing with the content:
  - What is the central research question?
  - What contribution does the study make to the existing literature? Which existing research gap is addressed?
  - Which causal relationship does the paper answer (in the following form: What effect does X have on Y)?
  - How do the authors answer the research question?
    - In non-experimental studies:
      - a. What data do they use?
      - b. Which estimation method do they use? What are the key assumptions underlying the estimation method?
    - In experimental studies
      - a. Who belongs to the experimental and the control group?
      - b. Is there a check of the interval validity?
  - $\circ$  Why is the empirical research design needed to answer the research question?
  - What are the key findings?
    - Are the results statistically and economically relevant?

- What mechanisms underlie the results?
- Are there problems with internal validity?
- What are the limits of external validity?
- Are there alternative, better ways to answer the research question (research design, method, data, context)?

### Notes on content and style

- When you evaluate literature, be critical! Every thought should be tested by you for its validity.
- Be careful to avoid excessive or general statements. Provide evidence for your statements.
- Critically examine the terms and concepts used (e.g. assumption vs. hypothesis).
- If you put forward hypotheses, you must also justify them. A mere reference to a source is not enough. Tables and figures are helpful for this purpose.
- Try to give your work a clearly recognizable "common thread".
- In addition to motivation your thesis, the introduction should also provide an explanation of your outline and your results.
- Argue precisely and concisely, avoiding repetition. The assessment also depends on your ability to clearly elaborate the essential points in a limited space.
- If you make the value judgements, such as "better", "suitable", "appropriate", you must justify them.
- Verbatim quotations are only recommended in the case of particularly concise sentences. As a rule, you should try to formulate as independently as possible

### 4 Other notes

### Bachelor theses:

- In addition to the Bachelor thesis (12 ECTS), the participation in a Bachelor seminar (3 ECTS) is compulsory according to §30 paragraph 7 of the Bachelor examination regulations.
  Please arrange an appointment for this at the beginning of the thesis writing period.
- The standard thesis writing period for the Bachelor thesis is 9 weeks.
- You should have already dealt with methods of empirical economic research, for example through a bachelor's seminar or attendance of an empirically oriented lecture.
- In case of illness (certified), the thesis writing period is suspended.
- If you are completing and English-language degree programme, the Bachelor's thesis must be written in English.
- Submission to the examination office: 2 copies in writing, 1 copy electronically.

- Please also email a PDF version of your thesis to your supervisor.
- Further information can be found here (in German): <u>Bachelorprüfungsordnung des</u> <u>Fachbereichs</u>.

### Master' theses:

- Master's theses usually contain own empirical work. Good knowledge of common statistical programmes such as Stata or R is therefore recommended, as is solid empirical knowledge.
- Attending one of my Master's courses is recommended as a basis for a Master's thesis in one of these areas.
- The standard thesis writing period for a Master's thesis is 6 months.
- Please consider your respective subject examination regulations for the exact regulations in your degree programme.
- A presentation in the context of a Master's seminar is expected. This should be at least 2 months before the submission date.
- In case of illness (certified), the thesis writing period is suspended:
- Submission to the examination office: 2 copies in writing, 1 copy electronically.
- Please also email a PDF version to your supervisor.
- For further information, please see here (German): <u>Masterprüfungsordnung des</u> <u>Fachbereichs</u>.