

Guidelines for writing scientific papers

This guide applies to research papers (undergraduate seminar for Bachelor students and graduate seminar for Master students), Bachelor's theses, and Master's theses in the field of economic policy. Most parts of this guide apply equally to all four types of written work. Deviations are explicitly pointed out.

General

The written work should have the following scope:

- Undergraduate research paper 10 pages (+/-1 page)
- Graduate research paper 15 pages (+/-1 page)
- Bachelor's thesis 40 pages (+/-4 pages)
- Master's thesis 60 pages (+/-6 pages)

The number of pages refers only to the written text (including figures and tables), but not to the bibliography and appendices. Use Times New Roman 12 font with 1.5 line spacing. Measurements for page margins are: top=2.5cm, bottom=2.5cm, left=4cm, and right=2cm. Please format your work in justified print.

The written work should include the following parts:

- (i) Title page
- (ii) Table of contents (with page numbers) (if necessary, list of abbreviations/figures if many technical abbreviations or figures are used in the text)
- (iii) Text
- (iv) Bibliography
- (v) Appendix (if applicable)

Please see the appendices of this document for samples of the design of research papers' title page.

The papers must be submitted in printed form (three times for Bachelor's and Master's theses, twice for seminar papers). **In all cases, the paper must additionally be sent as a PDF or Word file to the secretariat and the supervisor of your paper.** Bachelor's and Master's theses should be submitted in bound form, whereas a loose-leaf binder is sufficient for seminar papers. Elaborate (and expensive) application folders are not necessary! For the examination office, one CD version and three printed versions must be submitted for Bachelor's and Master's theses. The submission of a version burned on CD or DVD for seminar papers is not required. However, if you have created your own data set in the course of an empirical paper, it makes sense to submit it on a suitable storage medium as well.

Active participation in the seminar presentation blocks is compulsory and this includes not only the time of one's own presentation, but also the entire time during which other students hold presentations.

Summaries (abstracts) for Bachelor's and Master's theses

For both Bachelor's and Master's theses, a short summary (abstract) of no more than 250 words has to be placed at the beginning of the paper. The abstract summarizes the work and the results concisely in order to give the reader an overview of the work.

Scientific work

Scientific work sets high demands in terms of expectations, thoroughness, methodology and ethics. These requirements go well beyond what is demanded at schools in subject or seminar papers.

References

Please use the abbreviated citation (name year: page(s) referred to, if applicable) either in the text (preferred variant) or in footnotes (see examples below). Please do not use endnotes! In footnotes, citations can also be annotated.

Example of direct quotation in the text: "A further difficulty for defenders of universal method and standards emerges once it is recognized that the methods and standards of physics are subject to change" (Chalmers 1990: 20).

Example direct quote in footnote: "A further difficulty for defenders of universal method and standards emerges once it is recognized that the methods and standards of physics are subject to change".¹

Example of indirect quotation in the text: Another line of reasoning against a universal method refers to the inherent change in methods of the paragon discipline, physics (Chalmers 1990: 20-23).

Example of indirect quotation in footnote: Another line of reasoning against a universal method refers to the inherent change in methods of the paragon discipline, physics.²

Example of an annotated quote: "Another line of reasoning against a universal method refers to the inherent change in methods of the paragon discipline, physics."³

If the text you are citing was written by three or more authors, you can use the name of the first author and add "et al." (Latin; "and others"), for example (Audretsch et al. 2001).

Please use direct quotations only in a few cases. The normal case should be to use indirect quotations, for example, when you formulate the argument yourself and refer to the sources of the arguments (see examples above).

Bibliography

All articles, books, and other sources used in the text must be documented in the bibliography. Conversely, all sources listed in the bibliography (directly or indirectly cited), must also be used in the text.

¹ Chalmers (1990: 20).

² See Chalmers (1990: 20-23).

³ This is advocated for instance by Chalmers (1990:20-23). See however for a contrasting opinion Zimbalist (2002).

Please sort the list of sources alphabetically by the second name of the first author. If you are using multiple sources by the same author, sort them by year of publication (from old to new). If you want to list multiple sources by the same first author with other co-authors, sort them as follows: (1) single author sources, (2) sources with co-authors, sort by the second name of the next author. Within this rule, sort the sources by year of publication. If you have two or more sources of the same author(s) and year, add a, b, c, etc.

Examples:

Journal article

Audretsch, David B., Baumol, William J. & Burke, Andrew E. (2001), Competition Policy in Dynamic Markets, in *International Journal of Industrial Organization*, Vol. 19 (5), pp. 613-634.

Humphreys, Brad R. (2002), Alternative Measures of Competitive Balance in Sports Leagues, in: *Journal of Sports Economics*, Vol. 3 (2), pp. 133-148.

Monographs

Nelson, Richard R. & Winter, Sidney G. (1982), *An Evolutionary Theory of Economic Change*, Cambridge, Massachusetts: Harvard University Press.

Chalmers, Alan (1990), *Science and Its Fabrication*, Minneapolis: University of Minnesota Press.

Chapter in an anthology (e.g. conference proceedings)

Baker, Jonathan B. & Shapiro, Carl (2008), Reinigorating Horizontal Merger Enforcement, in Robert Pitofsky (ed.), *How the Chicago School Overshot the Mark*, Oxford: Oxford University Press, pp. 235-291.

Cygan, Adam (2007), Competition and Free Movement Issues in the Regulation of Formula One Motor Racing, in: Barbara Bogusz, Adam Cygan & Erika Szyszczak (eds), *The Regulation of Sport in the European Union*, Cheltenham: Elgar, pp. 74- 94.

Working Paper/Discussion Paper

Bresnahan, Timothy F. (2001), The Economics of the Microsoft Case, SIEPR Discussion Paper No. 00-50, Stanford University.

Szymanski, Stefan (2006), Tilting the Playing Field: Why a Sports League Planner Would Choose Less, not More, Competitive Balance, AIES/IASE Working Paper 06- 20.

Legal texts

GWB - Act against Restraints of Competition: in the version published on July 15, 2005, last amended by Art. 3 G of December 21, 2006 (BGB1. I p. 3367), (BGB1 I p. 2114).

Internet source

Froeb, Luke, Tenn, Steven & Tschantz, Steven (2007), Mergers when Firms Compete by Choosing both Price and Promotion, <http://ssrn.com/abstract=980941> (accessed April 21, 2009).

Scheffman, David T. (2004), Whither Merger Simulation?, <http://www.ftc.gov/speeches/other/040129scheffman.pdf> (accessed May 15, 2007).

Multiple sources of the same author and the same year

Budzinski, Oliver (2008a), The Governance of Global Competition, Cheltenham: Edward Elgar.

Budzinski, Oliver (2008b), Monoculture versus Diversity in Competition Economics, in: Cambridge Journal of Economics, Vol. 32 (2), pp. 295-324.

Consistency and completeness of the bibliography are important!

Text in footnotes

It is permitted to use text in footnotes, for example for comments or supplementary notes. However, these should not be needed for understanding the text or for argumentation.

Figures and tables

Figures and tables are welcome. They should be placed close to the accompanying text. Each figure and table should be numbered consecutively (Fig. 1, Fig. 2, etc.; Tab. 1, Tab. 2, etc.) and have a heading and a reference. If you derived a figure or table from the original source, write "modified from...". If you have developed the figure or table entirely on your own, write "own figure" or "own table". Do not forget to make the data source(s) clear!

Mathematical expressions

Please use a formula editor to map mathematical expressions and do not use scans. Make sure that each variable is explained!

Appendix

Any figure, table, or mathematical expression not referred to in the main text belongs in the appendix.

It is not mandatory to insert an appendix.

Scientific literature

When searching for scientific literature, your main attention should be paid to articles in scientific journals.

Monographs, conference proceedings and other collected works, and discussion papers are also part of the scientific literature that you can use. Newspapers, magazines, TV broadcasts, and other Internet media can be helpful in obtaining facts (and should be used for this purpose), but these do not represent scientific literature and should not be used for analyses.

Textbooks, encyclopedias, etc. can be a starting point, but are not sufficient as a foundation for analysis.

In addition to the university library, there are other platforms on the Internet with the help of which suitable scientific literature can be found and often downloaded electronically at the same time. Here are to be mentioned in particular:

- Social Science Research Network: www.ssrn.com
- EconPapers: www.repec.org

Both platforms can be used to download current discussion papers and to locate journal articles, which can then be retrieved, downloaded, or borrowed via the university's electronic journal library. In principle, we recommend to use as many search options as possible.

References

There is no target number of sources, as this also depends on the topic. In general, the more literature used, the better the potential quality of the paper. More literature means different points of view and better opportunities to engage in a discussion. Do not rely on just one article or book for a particular section or chapter of your paper! It could lead you into a one-sided perspective!

In general, consider

- at least 5 sources for undergraduate seminar papers,
- at least 10 sources for graduate seminar papers,
- at least 15 sources for Bachelor's theses,
- at least 20 sources for Master's theses.

Keep in mind that the quality of a paper does not need to be directly proportional to the number of references.

Style

Try to offer a neutral, differentiated (pro & con) discussion of your topic. (Personal) opinions can be included, but only as a logical result of the discussion – and not as a prejudice.

Keep in mind that you write a paper in the field of economics, so please make sure to include concepts, perspectives, and language from economics.

Ethics

Respect the intellectual property of the sources you use at any time! Mention the origin of every argument and line of thought you use! Otherwise, your work is considered to be plagiarism. Consequently, the paper will be graded as "failed". In addition, you will be excluded from all further components of the examination (seminar participation, etc.).

Your work will be checked using plagiarism software to detect possible internet plagiarism (e.g.: 'copy and paste' from an existing text on the internet).

For this reason, the following statement must accompany any paper submitted to the Department of Economic Policy:

"I have prepared this thesis independently and without the use of sources other than those indicated. All passages taken from published and unpublished sources are identified as such. The work has not yet been submitted in the same or similar form or in excerpts as part of another examination."

The author has to sign the declaration, stating the date and the location.

Presentations

Presentations are usually required for seminar papers. These should last about 15 minutes. It is important to avoid exceeding or falling short of the time limit.

The presentation summarizes the main points of your work and conveys them to the audience in an understandable way. Due to limited time, it is not advisable to try to include all the details of your work in the presentation. Focus on the essential content that you think is appropriate and interesting to the audience.

The 'right' number of presentation slides depends very individually on the presentation style and design of the slides. Be careful not to create too many slides, or you run the risk of 'racing' through the last few slides to finish on time. Even fast and skilled speakers can manage an average of one slide per minute at most; most manage less. You should also be careful not to overload the slides with text; otherwise, the audience may be overwhelmed with listening and reading. Key points on the slides are appropriate, which you then explain later on.

Graphs and tables are usually desirable depending on the topic. Please make sure that they are sufficiently legible and, especially in the case of tables, that they are either limited to the essentials or that the essential entries are highlighted. Scans are unsuitable. Instead, create graphs and tables yourself. Please make sure to provide references on your slides!

Discussion of a seminar paper of a fellow student

Part of the undergraduate seminar and graduate seminar performance is the preparation of a discussion on a paper of another seminar participant. The assignment of the papers typically takes place after the seminar papers have been submitted in the week before the event. The discussion should not exceed five minutes. Preparation of a few presentation slides is not a requirement, but is useful in most cases.

The aim of the "discussant" is to provide a critical review of the corresponding seminar paper. In doing so, you, as the discussant, should argue factually and enable an entry into the subsequent discussion of all participants. Try to offer constructive criticism so that the author can also benefit from it. The critique should deal with the content of the paper (i.e., the *topic of the paper*) and, if possible, build an argumentative counter-position. Criticism of formalities such as spelling or the external form etc. is generally not appropriate.

Give some thought to the topic. Ask (yourself) questions such as:

- What is the goal and what are the core theses of the work? Were these clear?
- Are the structure/presentation/methods of the work appropriate for the topic?
- Which points are well/badly presented, or easy/difficult to understand?
- Do you come to similar conclusions? On which points do you disagree with the author? Especially important: Can you provide additional counterarguments to thematic statements/conclusions of the paper?

- Are there further aspects that would have been important or would have required a more detailed analysis? (Please keep in mind the restrictions of a seminar paper: if you suggest additional contents, you also have to say what could be shortened or omitted!)

It is unnecessary and unfavorable to start the discussion with a table of contents or – even worse – with a retelling of the work. Keep in mind that all seminar participants have just heard the contents! If the main points of the paper were not pointed out clearly, it may be useful to summarize them again in a structured way before you start your critique. The conclusion should provide a good introduction to the discussion, but also give the author the opportunity to comment on the criticism.

Although the aim of the discussant is to build up a substantive counter-position, criticism always includes positive as well as negative evaluations. It is a popular strategy to embed the argumentative counter-position in an introductory as well as a concluding phrase. However, the counter-position is important. No research paper can answer all questions. Play 'devil's advocate, although in a polite way. If necessary, give clear criticism, but always remain factual! Again, it is about a thematic counter-position, not about an evaluation of the corrected work in terms of grading (that is the responsibility of supervisors).

Appendix 1: Sample thesis paper

<Graduate Seminar Industrial Economics Winter term / Summer term 20...>

<Subject of the work>

<last name, first name>

1.

2.

3.

4.

5.

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Appendix 2: Sample of a title page for a research seminar paper

Ilmenau University of Technology
Faculty of Economic Sciences and Media
Department of Economic Policy
Prof. Dr. Thomas Grebel

Research seminar in the
summer term 20..

Topic no. ..

<Subject of the work>

Supervisor:

<name>

Submitted by:

<last name, first name>

<address>

<email address>

<matriculation no.>

Appendix 3: Sample of a title page for a Master's thesis

<last name, first name>

<address>

<email address>

<matriculation no.>

<Thesis topic>

Master's thesis

for the attainment of the academic

degree "Master of Science"

at the Faculty of Economic Sciences and Media

of Ilmenau University of Technology

Department of Economic Policy

Supervising University Professor:

<Additional Supervisor:>

Deadline: