Writing your thesis

(27.08.2020)

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1 General information

As part of the Bachelor's programme in Economics and Social Sciences, you are required to write a Bachelor's thesis and possibly a seminar paper; for the Master's programme, a Master's thesis is required. This guide is intended to provide information about what the chair of Applied Microeconomics and Business Economics expects of written work as well as providing tips and support.

Please note there is no issue with you writing your thesis in English or French.

The following table gives a brief overview of the written work you have to submit:

		ECTS credits	Grading
BAC	HELOR		
2nd year	seminar paper	6	no (pass / fail)
3rd year	Bachelor's thesis	15	yes
MA	ASTER		
	Master's thesis	18-27	yes

2 Objectives

The seminar paper and Bachelor's thesis will be your first scientific writing. The thesis should be set out in such a way that it logically structures and clearly communicates connections, findings and ideas on a specific topic.

In particular, the aim is to learn how

- to develop and narrow down a workable problem,
- to search for literature and data,
- methods and concepts discussed in the lectures that you have attended (microeconomics, statistics, etc.) are applied.

Other important learning objectives are to establish

- · a clear, clean structure within the work,
- · to correctly use citations and create a bibliography.

3 Procedure

3.1 Selecting a topic

Students can make their own suggestions for a topic for discussion or choose from the list of suggested topics on the website www.unifr.ch/amabe.

A suitable topic meets three criteria: 1. It inspires the student. 2. It falls within the area that the Chair can supervise – this area is much wider than is sometimes assumed. 3. It can be done within the framework of a student's thesis.

It is important to properly define the subject. In most cases, it is better to narrow down a topic and comprehensively analyse it than to deal with a comprehensive topic superficially. You should therefore invest sufficient time in defining the topic. You have to **discuss the topic with the supervisor**. Non-binding brainstorming sessions are a suitable way of doing this.

3.2 Researching literature

You can research literature in some of the following ways:

Internet: The university's computer network provides access to the most important journals and databases. Outside of the university's network this is possible via a VPN connection.

- Databases for scientific (economic) literature (e.g. journal articles, working papers): www.unifr.ch/bp2/de/recherches/b_elec/bd_eco, www.jstor.org, www.sciencedirect.com, ideas.repec.org, www.econbiz.de, scholar.google.ch
- Databases specific to working papers: www.nber.org, www.cepr.org, www.nber.org, www.cepr.org, www.cepr.org, www.nber.org, www.nber.org, www.cepr.org, www.cepr.org, www.ssrn.com, www.
- Various media websites: e.g. Economist (<u>www.economist.com</u>), Neue Zürcher Zeitung (<u>www.nzz.ch</u>), Frankfurter Allgemeine (<u>www.faz.net</u>), The New York Times (<u>www.nytimes.com</u>), Ökonomenstimme (<u>www.oekonomenstimme.org</u>).
- Websites of special research institutions: e.g. Konjunkturforschungsstelle ETH
 (www.kof.ethz.ch), Schweizerische Nationalbank (www.snb.ch/de/iabout/pub), Max-Planck Gesellschaft (www.mpg.de/de), Fraunhofer-Institut, Institut für Weltwirtschaft (www.ifw kiel.de), IZA World of Labor (wol.iza.org)
- Website of the Swiss federal authorities: www.admin.ch.
- It may be interesting to take a look at the homepages of researchers at other universities (e.g. <u>economics.with.edu/faculty/acemoglu</u>)

Library: The BP2 library contains journals that provide information on new publications, e.g., Journal of Economic Literature, WISU (Das Wirtschaftsstudium), WiSt (Wirtschaftswissenschaftliches Studium), Die Volkswirtschaft.

In addition to journals, textbooks can also be used as literary reference material. Searches for Fribourg libraries at https://explore.rero.ch/de_CH/rero and for Swiss and worldwide libraries at https://explore.rero.ch/de_CH/rero and for Swiss and worldwide libraries at https://www.swissbib.ch/, https://kvk.bibliothek.kit.edu/.

3.3 Proposal

Before starting to write the paper, you will need to write a proposal and discuss it with your supervisor. The proposal should very briefly describe the thematic scope. Ideally, it should be 1-2 pages long. The proposal should contain:

- · the title of the paper,
- · the definition of the problem,
- · the objective,
- method, approach,
- structure of the paper (provisional table of contents),
- initial literature and data sources.

The supervisor's acceptance of the proposal is the official starting point for the paper. Preliminary work carried out on preparing the proposal and the proposal itself can well be used as material for the actual paper.

3.4 Time frame

The Chair sets no time restrictions for the written work. The student is responsible for managing the project independently and obtaining feedback as required.

Milestones and deadlines are very helpful in good time management.

We advise taking your time to choose your topic. Once the proposal has been accepted, we recommend starting with the most important part, i.e. the core of the work.

3.5 Submitting your thesis

Bachelor's and Master's theses are to be submitted to the Dean's Office. For this purpose, please refer to the <u>faculty's individual instructions</u>.

Finished seminar papers are to be submitted directly to the Chair together with the <u>faculty's</u> <u>corresponding form</u>.

4 Requirements

4.1 Content requirements

As regards the content of the work, it is expected that

- the reference to the subject matter always be maintained,
- the reasoning be logical and free from contradictions,
- attention be paid to the scientific nature of the work,
- topics be presented and discussed in a balanced way,
- your own contribution be presented in a comprehensible way.

The entire work must focus on the research question. In case of doubt, anything that does not serve to answer the research question has no place in the work.

4.2 Linguistic requirements

The following requirements must be observed:

- clear language,
- correct spelling and punctuation,
- correct and precise choice of words,
- an easily readable sentence structure: complicated constructions and sentences containing numerous subordinate clauses should be avoided,
- consistent use of tenses.

4.3 Structural requirements

We recommend that the work be structured as follows:

- o cover page,
- possibly the abstract,
- o table of contents,
- o possibly a list of figures and tables,
- o introduction,
- o main part,
- o closing remarks,
- o bibliography,
- o possibly annex.

Cover page: the cover page can be set up according to the sample in the annex to this guide. This page is not numbered. The University of Fribourg's logo is available here.

Abstract (optional): a scientific paper usually begins with a short and concise 100-200-word summary, which is known as an 'abstract'.

As a reference for form and style, we recommend reading some abstracts of scientific articles. An abstract is not mentioned in the table of contents (and its page is not numbered).

Table of contents: there are various ways to set up the table or contents. We recommend decimal classification: 1. / 1.1. / 1.1.1. etc. Such a classification makes it easier to structure the work clearly and logically. This gives the work a clear structure. Avoid classifications with more than three levels. If one level has a sub-chapter, e.g., 3.1., then there must also be a second sub-chapter in this section, i.e. 3.2. Text can, but need not, be placed between chapter and sub-chapter headings. For each section, the table of contents indicates the corresponding page number. This guide's table of contents can serve as a sample.

List of figures and tables (if necessary): the lists of figures and tables provide information on the figure or table number, the figure or table heading and the page numbers on which the figures or tables can be found in the text section. If a paper contains both figures and tables in the written section, but relatively few of either or both of these types of graphics, they can be recorded in one common index (index of graphics).

Introduction: the introduction should – in a way similar to the proposal – contain the following points:

- a definition of the problem (and topicality of the subject),
- questions relating to the closer definition,
- the objective of the paper,
- a short presentation of the most important results or theses,
- a short bibliography (What is already being discussed or investigated in the literature? What is new in this paper?),
- the structure of the work.

Main part: the design of the main part is up to the author of the paper and also depends on whether they are preparing a theoretical or empirical paper. It is important that there be a clear structure and that most space be given to one's own contribution, the core of the work.

Closing remarks: the closing remarks are where a conclusion is drawn. The initial question can be repeated and the central statements or results of the paper can be briefly summarised and discussed. This is also the place to mention any important limitations of your own work. You may also point out future research questions on the topic of the work.

Bibliography: the bibliography must contain all references cited in the paper and must be arranged alphabetically according to the surnames of the authors. The form of the references must be consistent.

Annex (if required): tables, figures, programming code and other supplementary documents can be placed in the appendix of the thesis. This avoids distorting the text in the main part. In the main body, reference can be made to the corresponding figure or table in the annex.

4.4 Formal requirements

4.4.1 General information

Both sides of each page must be written on, each numbered. While Arabic numerals must be used to number the pages of the text section, Roman numerals can be used for the pages before the text section (see Section 4.3.).

The line spacing must be 1.0 to max. 1.5 lines and the font size for the main text must be 11 or 12 pt. Only longer quotations and footnotes may be written with reduced line spacing and in a smaller font.

As a general rule, seminar papers should be 15-20 pages long while a Bachelor's thesis should be 20-40 pages, and a Master's thesis 25-50 pages. **Quality and content always come before quantity**.

4.4.2 Tables and figures

Each table or figure should be understandable on its own. As such, the reader should be able to understand each table/figure without the need to study the text. You have to indicate the source of the data used for each table/figure. The tables/figures must be numbered consecutively and given a comprehensible title and, where appropriate, a brief explanation.

4.4.3 Citation method

Any use of third-party intellectual property must be identified by precise references. This applies to both literal quotations and analogous reproduction of a text passage.

The beginning and end of a literal quotation must be highlighted and separated from the remaining text by quotation marks. The principle of 'faithfulness to the original' applies to every literal quotation (including orthography, punctuation, bold and spaced lettering, etc.).

Any deviations from the original must be noted. If individual words or sentences are omitted to shorten the quotation or for stylistic reasons, this must be indicated as follows: [...].

By analogous reproduction we mean quotations in which authors reproduce thought processes from a source in their own words. The source is then traditionally indicated by using 'cf.'. However, it has become common to not write 'cf.' in English.

In principle, each quotation must meet the following three criteria:

- scientific faithfulness,
- comprehensibility,
- uniformity.

With regard to citation in the text, we recommend using the short citation method. Here, each item – regardless of whether it is being quoted for the first time or repeatedly – is recorded as follows: name, year.

Examples: Tirole (1988) showed that...

This is consistent with empirical evidence (see Tirole, 1988).

(The complete information can be found in the bibliography)

When two authors were involved, both are always named. For three or more authors, you usually use the first name and 'et al.'. According to convention, for three to five authors, you should write their full names in the first mention and follow by mentioning the first name and 'et al.'. You should never write the names of six or more authors in full, but instead write 'et al.'.

Examples: (O'Donoghue & Rabin, 1999) or O'Donoghue and Rabin (1999)

First quote: (Blanchard, Amighini & Giavazzi, 2013), others: (Blanchard et al., 2013)

You should write the full name for corporate authors. For longer names, common abbreviations can be added in brackets when they are first mentioned and then used alone.

Example: first quotation: (State Secretariat for Economic Affairs [SECO], 2016)

others: (SECO, 2016)

To indicate the exact origin within the source, further clarification may be added following the year, especially for literal quotations or longer sources.

Examples: (Solow, 1956, p.76), (Tirole, 1988, chapter 2).

Scientific journals, especially English-language ones, can be used as a model for this citation method. If you cite several titles by the same author from the same year, these need to be distinguished by small letters placed after the year (e.g. Tirole, 1988b).

Every source cited in the text must be listed in the bibliography. The references have to be sorted alphabetically (by surname). The entries usually consist of the name, year of publication, title and information on the publication.

a) Books

Basic format for books: author(s) (year). Title of the book. Place of publication: publisher.

If the work comprises several volumes, the number of the cited volume must be indicated. If it is not the first edition of a book, you have to state which edition the quotation was made in.

Examples: Tyrol, Jean (1988). The Theory of Industrial Organization. Cambridge, Mass..: The

MIT Press.

b) Anthologies, manuals and concise dictionaries

Basic format for anthologies, manuals and concise dictionaries: author(s). (year). Title in: name of the editor (ed.) Title of the work. Place of publication: publisher. Pages.

If the work comprises several volumes, the number of the cited volume must be indicated.

c) Journals and newspapers.

Basic format for articles: author(s) (year). Article title. Magazine name, volume/year, pages. Examples:

O'Donoghue, Ted & Rabin, Matthew (1999). Doing it now or later. American Economic Review, 89(1), 103-124.

For journals or newspapers, the exact date or month must be provided in addition to the year.

Examples: Sinn, Hans-Werner (2014, 1 November). Sie sind wie Spürhunde. Süddeutsche

Zeitung. Retrieved from http://www.sueddeutsche.de.

Cudré-Mauroux, C. & Stadler, P. (2016, March). Weniger Armut – mehr Ungleichheit.

Die Volkswirtschaft, P. 15-18.

For articles whose author is not mentioned, the publisher replaces the name.

Examples: The Economist (2016, 20 February). Unfamiliar ways forward. P. 14-17.

d) Electronic sources

For electronic sources you will need to observe some more rules. Ideally, the article has been assigned a so-called DOI (digital object identifier), in which case it only needs to be added to the entry.

Examples: Becker, S. O. & Woessmann, L. (2009). Was Weber Wrong? A Human Capital Theory

of Protestant Economic History. The Quarterly Journal of Economics, 124(2), 531-596.

doi:10.1162/qjec.2009.124.2.531.

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. The Quarterly

Journal of Economics, 70(1), 65-94. doi:10.2307/1884513.

If no DOI is available, the URL of the journal or publisher should be given (see Sinn (2014) and SECO (2016) above). If you check on the web, you will find that the correct entry for Cudré-Mauroux and Stadler (2016) is therefore:

Examples: Cudré-Mauroux, C. & Stadler, P. (2016, March). Weniger Armut – mehr Ungleichheit.

Die Volkswirtschaft. Retrieved from http://dievolkswirtschaft.ch.

Mentioning the full URL (e.g. http://dievolkswirtschaft.ch/de/2016/02/stadler-03-2016/)) makes sense if the article would otherwise be difficult to find (authorities, NGOs, blogs, etc.). The retrieval date is only necessary for sources that change over time (wikis, etc.)

e) Data sets

As a basic rule, the same format applies to data sets. If available, the version number of the data set is provided in round brackets. The type of document is specified in square brackets.

Examples: Federal Statistical Office (2015). Gross domestic product (GDP) by major region and

canton (je-d-04.02.06.01) [data set]. Retrieved from http://www.bfs.admin.ch.

Other citation methods can also be used. However, these must always be in line with a form used in specialist literature and must be applied consistently.

5 Assessment

The paper is assessed against the requirements listed in section 4. Among the dimensions of the assessment are: problem definition, analysis, synthesis/results, literature and form.

Annex: Sample of a cover page



The title of the paper

Seminar paper / Bachelor's thesis / Master's thesis

on

Chair of Applied Microeconomics and Business Economics

Department of Economics

Faculty of Economics and Social Sciences

University of Freiburg/Fribourg

submitted by
stud. rer. pol. (Xst/nd/rd/th semester) first
name(s) SURNAME from place of residence
Student number

Date

Winter or summer semester 20_, Lecturer: Prof. Berno Büchel Assistant: Anis Nassar

Email: