Master Thesis Manual

Guidelines for the Master Thesis

1. Introduction

Dear Student

You are about to embark on what is probably the largest piece of research / independent study / development work you have undertaken. You will have to choose and define an appropriate topic, research relevant information, set that information in the context of an appropriate intellectual framework, plan and develop new software solutions (contingent on your topic), draw relevant conclusions, write up, and submit the work in the approved format.

Your Master Thesis will no doubt be challenging and perhaps even daunting; however it has the potential of being one of the most interesting and even enjoyable parts of your study whilst at SRH University. The Master Thesis counts for 28 ECTS of your final year assessment and will contribute significantly to your honours classification.

This manual along with the support of your Master Thesis Supervisor should assist you achieving a successful outcome. The document includes important information relating to some characteristics of the Master Thesis, which are requested by the SRH Heidelberg University of Applied Sciences, Faculty of Informatics.

2. Written Presentation Format

The Master Thesis can be written in German or English.
The Master Thesis should be bound (e.g. hardback, softback etc.) in a nice way.
You have to deliver 3 bound copies of the Master Thesis. In addition the thesis has to be delivered electronically on CD. The CD should also include all the additional material taken from the internet, as we cannot be sure that the material is still available online at the time when the thesis is marked.

2.1 Length
The target length of a Master Thesis is about 80 pages (+/- 20%). If the Thesis is to be very much shorter or longer, it is necessary to clear this in advance of the final deadline with the Thesis Supervisor.

2.2 Referencing
It is the student's responsibility to see to it that all ideas, opinions, conclusions, specific wordings, quotations, conceptual structures and data taken directly or indirectly from the work of others and used in the Thesis report are appropriately cited and referenced. **(The importance of proper referencing – see section 3 – cannot be over emphasised.)**

2.3 Structure and Components

The arrangement of the completed Master Thesis is in three stages, preliminaries, the body, and end material.

2.3.1 Preliminaries

Preliminaries should be arranged in the following order:

Title Page 1 (see the sample page 1 in the appendix)

The title should be succinct yet clearly specify the content of the report. This should be descriptive and explicit rather than poetic or implicit. It should be agreed and finalised as part of the final draft. It may be different from the original proposed title.

Title Page 2 (see the sample page 2 in the appendix)

Acknowledgements (Optional)

The student may wish to thank those people who have been particularly helpful in the preparation of the Thesis.

Table of Contents

Abstract (must be in English, maximum one page)

The purpose of the abstract is to summarise the entire Thesis, including a description of the problem, the student's contributions, and conclusions.

2.3.2 Body of Work

The body of work is presented as a series of chapters, beginning with an Introduction and ending with a conclusion.

Introduction

The purpose of this section is to contextualise the study. This means that the significance or importance of the subject is set out. If there is no apparent importance to the study to any external reader, the topic may not be appropriate. Personal interest may inspire selection of the Thesis topic, but ultimately, its importance to others should be specified. This can often be done by positioning the Thesis in relation to other work that has been published, either as an advancement, continuation, compilation or verification. This section should also tell the reader how the topic will be unfolded and the order of forthcoming material.

Body of Work (Individually structured)

The sections of each Thesis will differ, but in any case should progress logically. Contingent on the topic you have chosen, it may start with a review of existing knowledge followed by a presentation of a summary or synthesis, introduction of research methodology and findings (if applicable), or introduction of case material, a description of your development work etc. .

Conclusion and Outlook

This section explains the relations between the body of knowledge and the new developed software solution, the case or the new findings. It should present the case for the Thesis's success in meeting its goals, as well as any shortcomings and limitations that apply. It may suggest further work or study needed on the topic, as well as ways the new work can be used or applied in other cases. It is not meant to be a summary or restatement of the entire Thesis, which belongs in the abstract. If the student has developed any strong personal opinions about the subject which seem appropriate to relate, this is the place where such content is appropriate.

2.3.3 End Material

References

Citations of specific works referred to in the text (see section 3.1).

List of Figures (if required)

List of Tables (if required)

Glossary (Optional)

If your Thesis contains unfamiliar abbreviations or technical terms it is helpful to include a glossary at this point.

Appendix / Appendices

Optional inclusion of source code, charts, graphs, additional data, photographs, maps, sample instruments, etc. Often the concepts of the study can be clarified in graphic form, or data presented in tabular form. Normally, this material should be entered into the text at or near the place it is referred to in the text. Where such material would be inconvenient to include in the text itself, it can be included in an appendix. As a general rule, if figures, tables, charts or quotes are less than a full page and can be conveniently included in the text, you will want to do so, since reference to appendices is awkward for the reader. All such material, in the text or at the end, should be titled and sequentially numbered. Tabular material which is presented in landscape format should be bound with the top of the table to the spine. It is not appropriate to include photocopies of journal articles or similar material.

Appendices are labelled alphabetically, although if there is little such material and it is all of a similar nature, it may all be included in one Appendix. Appendices are referenced in text in parentheses (Appendix A) not (see appendix A).

Declaration at the end (last page); see the sample page in the appendix

Please do not forget to sign. No signature: No Mark.

2.4 Writing Style

The level of writing must be appropriate to the level of the Master's degree. Specifically, acute attention should be paid to correct spelling, grammar, punctuation, sentence structure and clarity of style. Also, it is the student's responsibility to edit the text for typing errors, uncover all spelling errors even if the document is, typed by another party. Note that a spell check programme does **not** uncover all spelling errors, e.g. principal v principle.

Normally, there should be no first person references (I, we, us) in the report. If self-reference is required, reference may be made to "the present author" or "this study". The exception to this is in the conclusion section, where personal comments may be appropriate.

2.5 Page Layout

Pages should be numbered in sequence at the top right hand corner, starting with and including the title page. The Thesis must be word-processed, and final copy must be printed single sided on A4 paper. Spacing should be set at one and a half (1.5) line spacing. Spacing greater than this is not acceptable. The body of the Thesis should be in Font size 12, e.g. in Arial or Times new roman.

2.5.1 Margins and headings

Margins should be appropriate to the binding, e.g. 3 cm left margin, 2,5 cm on the other three sides. The right margin should be unjustified (left ragged), since the spacing between words used to make the right margin even inhibits readability greatly, while adding little aesthetically. Headers and footers should be included in order to give information about the current chapter, page and so on. Please do NOT include your name in any header or footer. Footnotes are to be used with discretion.

2.5.2 Tables and charts

Tables and charts should be numbered in sequence by chapter, e.g. Table 3.1 is the first table in Chapter 3. Each figure should be properly referenced in the text and accompanied by a descriptive (sub)title which completely explains the content of the figure.

It is not acceptable to insert photocopies of tables into the body of the Thesis. Tables should be word processed into the Thesis. In broad terms this principle also applies to diagrams – no photocopies from books etc. There will, of course, be occasions when a photocopy of a table or a diagram is specifically required in order to illustrate points peculiar to the original. Use of such photocopies must be cleared with the Supervisor. Similar principles apply to the appendices with regard to tables and diagrams. It is recognised that there will be circumstances (e.g. a Thesis on advertising) where photocopies are necessary. Another example might be a sample of a completed questionnaire.

3. Plagiarism and Citation

The intellectual work of others that is being summarised in the Master Thesis must be attributed to its source. It is assumed that **all** ideas, opinions, conclusions, specific wordings, quotations, conceptual structures and data, whether reproduced exactly or in paraphrase, which are not referenced to another source is the work of the student. **If this is not the case, an act of plagiarism may have occurred, which is cause for disciplinary action at the Master programme or University level.**

3.1 Plagiarism

Please pay particular attention to originality and the proper acknowledgement of your sources.

It is important that the work you submit:
* Is original in as far as the Thesis constraints allow
* Gives proper acknowledgement to any work by others which is used in completing your Thesis

Originality means that the Thesis subject is presented in a way which differs from any other:
* Published works
* Study guides
* Thesis of other students, past or present

This does not preclude the use of the same material from wider reading (to support it with examples, or relevant opinions and ideas, or to place it within the context of existing knowledge). It does mean, however, that the sources of any such material MUST be identified.

You should ensure that:
* Words or phrases taken verbatim from published works are placed in quotation marks and the source acknowledged.
* Quotations take the form of brief relevant extracts (only exceptionally exceeding 100 words in length).

Where lengthier use of a published work is appropriate, you may summarise or paraphrase an author's words, but the source of the summary or paraphrase must again be fully acknowledged by textual reference.

Unacknowledged use of the work of others (plagiarism) is regarded as dishonest practice and will be dealt with on that basis, as per the University's Regulations.

3.1 Citation / Referencing

Please use the **Harvard System** (also known as the Author-Date system) as the format for reference styles for your Thesis. Harvard referencing is a standardised format and style of recording references you have used in the preparation of your Thesis. The following is a brief sample for illustration. (The detailed requirements of Harvard referencing can be found in the following book: Commonwealth of Australia 2002, Style manual for authors, editors and printers, 6th edn, rev. Snooks & Co., John Wiley & Sons Australia, Canberra.)

Information about any one source must always appear in two places:

a. In the text (the textual reference)
You must always include brief identifying information in the body of your essay, directly following any information taken from another source. See section 3.1.1 for the rules involved in creating textual references.

b. In the reference list
Always provide detailed information about each source in a concluding list called the reference list. See section 3.1.2 for the rules involved in creating the reference list.

3.1.1 The textual reference
The Harvard System uses name and year in text, e.g.

> According to Steinman (2003) there are three parts... or
> A recent study (Steinman, 2003) states there are three parts...

Direct quotes should have author, year and page number. This should be done as (Steinman, 2003, p. 6). If a quote crosses over pages you would write (Steinman, 2003, p. 6-7). The purpose of the page reference is to enable the reader to find easily your source material. Particular points should also have page references whereas general themes from a complete article do not require the precise page number.

When the information you are referencing has two or three authors include all surnames in the textual reference as shown below:

> Some health authorities have already withdrawn funding for these kinds of treatments (Hardy & Taylor 1999, p. 24).

> It is important that … (Daly, Elliott & Chang 2000, p. 102).

However, if incorporating the two or three authors' names into your sentence, replace the ampersand sign (&) with the word "and".

> Hardy and Taylor (1999, p. 24) state that some health authorities…

When referencing material written by four or more authors only include the surname of the first author listed, followed by the abbreviation et al. (meaning and others). However, all names must appear in the reference list (see section 3.1.2).

> One survey set out to establish … (Jones et al. 1999, p. 7).

Note: If you are citing several books / articles from the same author(s) published in the same year use a, b, c etc. after the year, e.g. Bell, J. (2003a)….

If you can't determine the author(s) of a work, include the work's title (in italics) within the parentheses with the date.

> A recent survey identifies five key factors that can affect expatriate culture shock (*An Examination of Salient Factors Affecting Expatriate Culture Shock (* 2004)

3.1.2 The reference list

The Reference list must provide enough information to identify and retrieve each source you have referred to in your Thesis. The Harvard System is listed at the end of the text in alphabetical order by author (or by title when there is no author) and date (if you have several works by the same author, list these works in chronological publication date, i.e. start with the earliest publication date and end with the latest).

Each reference should contain the following elements if available: Author, Year of Publication, Title and publishing data (e.g. Place of Publication, Edition, Publisher).

Referencing a book

Citation order: Author's Surname, Author's Initials (no space in between) Year of Publication (in round brackets), Book Title (in italics), Edition (if any), Place of Publication: Publisher.

> *In text:* According to Bell (2003, p. 23) the most important parts of the research process is…
>
> *Reference list:* Bell, J. (2003) *Doing your research project.* 3rd edn. Buckingham: Open University Press.

Chapter / section of an edited book

Citation order: Author of the chapter/section (Surname followed by Author's Initials), Year of Publication (in round brackets), Title of chapter / section (in quotation marks), "in" plus author / editor of the book, Title of book (in italics), Place of Publication: Publisher, Page reference.

> *In text:* The view proposed by Franklin (2002, p.88) …
>
> *Reference list:* Franklin, A.W. (2002) "Management of the problem", in Smith, S.M. (ed.) *The maltreatment o*f children. Lancaster: MTP, pp. 83-95.

Referencing a journal article

Citation order: Author's Surname, Author's Initials (no space in between) Year of Publication (in round brackets), Title of article (in quotation marks), Title of journal (in italics), Issue information (volume, part number, month or season), Page reference.

> Gibberd, R, Snow, PT, Rice, PG & Patel, NB (1991), "Nuclear power at what price?". *The Bulletin*, 113 (5), pp. 51-5.

Referencing Electronic sources e.g. a Web Document

Instead of publisher and place of publication details (which can be meaningless in an electronic context) provide your reader with information on how to access the electronic information. For a webpage this would mean providing a URL (Uniform Resource Locator) for the page. This material must also be included in the CD.

> Airports Council International (2001), Airport Data:2000, Airport Council International Europe, Geneva, Available at: http://www.aci-europe.org/ (Accessed 13.02.2006).

4. Retention of Working Papers

In order to manage your Thesis effectively you must ensure that you are organised. Your working papers are the record that you maintain during the development of your Thesis to enable you to synthesise your knowledge and avoid losing key information. It is a key part of the process that you develop a disciplined system to manage the generation and analysis of your knowledge.

The working documents (e.g. notes, any photocopies of articles used, drafts etc) used for your Thesis must be retained by the student until formally notified of the award of their degree. As part of the SRH University quality control a stratified sample of students will be asked (after Thesis have been handed in) to submit their working papers. The working papers will give evidence that the Master Thesis results from your own work efforts rather than a ghosting service or one purchased from elsewhere. If your Supervisor is unsure that the Master Thesis results from your own efforts, s/he may request to see all of your working papers and to viva you to ensure you understand your work. So please ensure you keep you working papers so that if called for they can be produced. Failure to produce working papers when requested by the University to do so constitutes an Academic Irregularity, which may adversely affect the awarding of the students' degree. If it is not possible to establish, by inspection of the working papers, the sources of material in the Thesis the award of the degree will be delayed until the matter is resolved.

What are Working Papers?
The University tries to be reasonable over this. We do not expect you to keep every scrap of paper. We do expect you to keep the bulk of the important working papers. Thus students would normally (for example) be expected to include in their working papers some (but not necessarily all) successive drafts of the Thesis. Any photocopies of library material etc you use should also be kept.

If your Thesis includes calculations, the working papers for those would be expected. And if your Thesis includes a survey or questionnaire the original papers for those should be kept - along with names and addresses of any firms or individuals involved.

Working papers may include:
From the Literature Review:
        Copies of Academic Articles
        Copies of specific parts of books or professional publications
        Printed web pages used in your research
From your Method:
        Versions of questionnaires / questions for interviews / structures for analysis with
        corrections and annotation as you refine your ideas
From your development work / results:
        Copies of older versions of your development work
        Copies of source documents used as secondary sources ….annotated for analysis
        Copies of questionnaires, transcripts of interviews
        Rough brainstorms of the meanings of results
        Rough conclusions
From the writing up:
        Draft versions of sections of the Thesis

5. Appendix

Heidelberg University of Applied Sciences
Faculty of Informatics
D-69123 Heidelberg
Germany

Master Thesis

<Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing>

Done by
<Your Name>

Supervised by
<Your Supervisor1>
<Your Supervisor2>

Month Year

<Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing, Your Title, single line spacing>

<Your Name>
ID:
Group:

A thesis submitted as a part of the requirements for the qualifying examination for the degree of Master of Science

<Date (of hand over)>

Thesis Advisory Committee

……………………………………..………..   (Internal Referee)
<Your Supervisor 1>
Heidelberg University of Applied Sciences

…………………………………………………..   (External Referee)
<Your Supervisor 2>
<External Institution/Company>

Affidavit

- 13 -

Herewith I declare:

- That I have composed the chapters for the Master Thesis
  for which I am named as the author independently,

- that I did not use any other sources and additives then the one's
  specified,

- that I did not submit this work at any other examination procedure.

Heidelberg, _____

      (date)

      _____

      (signature)

Ehrenwörtliche Erklärung

Ich versichere,

- dass ich die Kapitel der Master Arbeit, für die ich als Verfasser genannt werde, selbständig verfasst habe,

- dass ich keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe,

- dass ich diese Arbeit bei keinem anderen Prüfungsverfahren vorgelegt habe.

Heidelberg, den   _____

(Datum)

_____

(Unterschrift)