SHORT GUIDELINES for WRITING YOUR MASTER DISSERTATION

The Master level dissertation is distinguished from other forms of writing by its attempt to analyse situations in terms of the ‘bigger picture’. It seeks answers, explanations, makes comparisons and arrives at generalisations, which can be used to extend theory. As well as explaining what can be done, it addresses the underlying why. The most successful dissertations are those, which are specific and narrowly focused.
This document is not intended to give a sure pathway through the dissertation process. It can only offer suggestions; there is nothing that can be said which will guarantee the production of a fine piece of work, but these are suggestions which, through time, have been found to be both practical and effective.
It is the students' responsibility to aggressively pursue their thesis research. This should happen without constant prodding from the adviser. Students should take the initiative and do what needs to be done, but at the same time they should also keep their advisers informed of their progress.

In any research project, one's objective should be to become the world's leading expert. This is entirely feasible for the typical narrowly defined thesis topic. One of the most important steps in becoming "the expert" is finding and studying the relevant literature. Every book and article with something to say about your thesis topic should be consulted. In this, many websites are freely accessible (Googlescholar, Researchgate, Academia…) or available by Unipg web acces (Scopus, ISI Web of Knowledge).

Once the research is initiated, the adviser's only required role is to provide guidance; the students carry the rest of the research load. Although there are certainly exceptions, most thesis advisers do not (and should not be expected to) work as "co-researchers" with their students (i.e., they do not share in the field and/or laboratory work).

N.B. These notes have been produced for general guidance only and you are required to read the recommended texts and journal papers on research techniques appropriate to the research methods of your subject discipline. You are not to use these notes as justification or reference for any methodological approaches or techniques in your dissertation.

SUGGESTED THESIS ORGANIZATION

Title

Titles should be short, punchy and not parochial. While care must be taken to avoid overstating the generality of your contribution, titles should emphasise the generic value of the work, not its geographical location or stratigraphic position. In some cases the novelty and significance of the work will be tied to a particular location and allowances will be made, but in most cases excessive geographical or chronological referencing is unnecessary. Titles should not be more than 25 words long.

Abstract

Concisely summarize what you did and how you did it, and what your principal findings and conclusions are. Do not cite any references, tables, figures or anything else. The abstract "must stand alone". Think of it as an ultra mini-version of your thesis. It is important that the abstract be informative and well written because it is the only part of your thesis that many people will read.
The abstract should be the last part of the thesis you write.

Acknowledgements

Thank your thesis advisor for giving you the topic and for supervising the work, and thank also the other thesis committee members and anyone else who helped you (physically, financially and/or emotionally) get through the experience (e.g., family, friends or pets).

Dedication: This is an option for students who want to make their thesis a lasting testimony to a much loved and appreciated friend or family member.

Introduction

Discussion of the genesis, context, goals, or creative pieces that form the thesis. May cover areas suggested in proposal components as well as provide some explication of particular works.

Statement of the problem: state the justification for doing the thesis. In other words, what is the geological problem that you are trying to solve and why does the work need to be done?

Objectives of the study: enumerate your specific objectives (i.e., provide a list of what you are going to do and what you expect/hope to achieve).

Geological setting (or geological background)

This should be a literature review of the previous work done by others on your thesis topic. For example, you might discuss the geology of your field area or earlier research findings relevant to your study. Do not mention any of your own thesis results in this chapter. It is always best if you can synthesize the literature rather than simply summarize each individual reference. If there are a large number of references it might be possible to present the key information in a table.

If you are repeating, word-for-word, what someone has said, you must put the text within quotes. Alternatively, you can paraphrase what was said but you should still use quotes for the critical clauses or terminology.

As a “review”, this must be concise and explicative for the data presented in the Results. Avoid long geologic dissertations (Big Bang Theory and Earth Formation) not finalized to the thesis topic.

Methodology

Here you describe the field and/or laboratory methods you used. Others need to be able to reproduce your work (or, at least, understand it) and so it is important that you leave nothing out. Very detailed analytical procedures involving numerous steps are best described in an appendix with only a general overview given in this chapter. As a rule, you want this section to be "readable" and so most of the uninteresting (but still important) detail should go into the appendices.

Instrumentation: The instrumentation section should identify the tool(s) used for collection of data. How the instrument was acquired or created as well as reliability and validity of the instrument should be eventually presented in this section.

Procedures: All aspects pertaining to the entire process conducted should be described. Careful consideration should be paid to approval of methods and treatment of human or animal subjects. All treatments should be carefully described as well as notification of risks for participation.
Statistical Analysis: Provide a clear description of the statistical process used for analysis of data. The type of statistical tests should be reflective of the research hypothesis or question(s).

Results

Results should be clear and concise.
Describe (but do not discuss or interpret) your field and/or laboratory observations using copious figures, tables and/or maps to illustrate your findings. The raw data should be tabulated in an appendix, and this chapter should only be used to "summarize" and "organize" your results in ways that are meaningful and informative.

Discussion

Use this chapter to interpret your findings in accordance with the objectives of the study. Also discuss any previously published interpretations that support or conflict with your own.

Conclusions

Concisely enumerate the principal findings and conclusions of your study. Do not mention anyone else's results and do not engage in any further discussion of your results. Also do not include any new figures or tables, but do refer to earlier figures and tables that support specific conclusions.
The conclusions differ from the abstract in two ways: conclusions (1) do not include anything about the statement of the problem, objectives, or methodology; and (2) present the findings in more detail.

Recommendations for Future (or Further) Research

This should be an enumerated list of possible research topics for those who come after you. These topics normally include unsolved problems from your study or alternative approaches the same problem. Remember: a thesis is never the final word on anything; there is always more work that can be done.

Appendices

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

EDITING GUIDELINES

Text

The thesis will be written in Italian (with extended abstract in English) or in English (with extended abstract in Italian).
All pages should be numbered in the bottom right-hand corner.
Authors should avoid use of the first person ('I', 'we' etc.) within the text.

Font type and layout
The basic font type is either Times New Roman or Times. The font sizes and spacing are as follows:
Font size:
· Main headings 16 pt
· Subheadings 14 pt
· Text 12 pt

Spacing:
· Text 1.5
· Footnotes 1
· Tables, indents and figure captions 1 or 2
· Abstract 1

Margins:
· Top and bottom margins 2.5 cm
· Left 3 cm
· Right 2.5 cm

NOTE: When converting a file into PDF format, make sure in the page layout settings that the page size for PDF files is A4. The default is often Letter size, which results in incorrect margins.

Paragraphs:
Leave one blank line between paragraphs or separate paragraphs by using 1.5 cm indention.

Headings
In the body text, headings begin from the left margin. Main headings begin a new page. Main headings are written in CAPITAL LETTERS, **bolded** and in a font size larger than the text (e.g. 16). Subheadings are written in lower case, **bolded** and in font size 14. However, you can also use other font sizes if it is justifiable.

Figures and tables must be cited at an appropriate point and numbered consecutively throughout the manuscript. All abbreviations used must be defined. Manufacturer details [company name, town (state, if USA) and country] should be included for any equipment, which is mentioned in a manuscript.
For preferred use of stratigraphic terminology and nomenclature, the reader is referred to the Code of Stratigraphic Nomenclature by ACSN, 1961, in Bulletin American Association of Petroleum Geologists, 45, 454-459, and to Geological Society of London Special Report no. 11, 1978. Text should be formatted 1,15-spaced with no hyphenation or automatic word-wrap (no hard

returns within paragraphs). Please type your text consistently, e.g. take care to distinguish between '1' (one) and 'l' (lower-case L) and '0' (zero) and 'O' (upper-case o), etc.

Figures

Please ensure the figures are placed next to the relevant text in the manuscript, rather than at the bottom or the top of the file.

Illustrations will be sized to fit within the width of a column (80 mm), two thirds of a page (112 mm) or a page (170 mm); a page is 230 mm deep. Panels of multipanel figures should be labelled with upper-case roman letters, A, B, etc. at the top left-hand corner of each panel. Multipanel figures that have common axes need not have all axes labelled if the abscissa axis closest to the bottom of the page or the ordinate axis closest to the left are also valid for those axes further up the page or further to the right, respectively.

Please ensure that scale information is included for all figure panels where appropriate.

Use of already published figures must be properly reported in the caption (es: ….after Smith, 1999) even in case of partial redrawing (es: …redrawn by Smith, 1999).

Please ensure that electronic artwork is prepared such that, after reduction, all lettering will be clear and easy to read, i.e. no labels should be too large or too small. Avoid using tints on diagrams if possible; if they are essential to the figure, always try to make them coarse. Figures and graphs should not contain gridlines.

Geological maps must always be accomplished of Geographical location, Legend, Orientation and scale. Geological section should accompany any geological map (trace of the section must be reported on the map)

Each illustration must have a caption that makes the material completely understandable without reference to the text. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables

Please ensure the tables are placed next to the relevant text in the manuscript, rather than at the bottom or the top of the file.

Tables should be numbered consecutively with Arabic numerals. Tables should be typed as text, using 'tabs' to align columns. Vertical lines should not be used to separate columns. Column headings should be brief, with units of measurement in parentheses.

All other illustrations (including photographs) are classified as figures and should be numbered consecutively.

Mathematics

In-line equations should be typed as text. Use of graphics programs and 'equation editors' should be

avoided, unless part of commonly available word-processing packages (Word, WordPerfect, etc.). A full Nomenclature defining symbols and terms should be provided after the Acknowledgements in the text.

Abbreviations and Units

SI units are preferred. Statistics and measurements should always be given in figures, e.g. 10 mm, except where the number begins the sentence. When a number is used to identify a feature (e.g. Section, Locality) it should be given in figures with the feature capitalized (e.g. Section 10, Locality 5). The word 'Figure' should be shortened to Fig. unless starting a sentence.

References

Authors should use the system illustrated below. In the text, references should be cited by giving the author's name with the year of publication in parentheses, and should be given in date order (e.g. Jones, 1982; Adams, 1985). When reference is made to a work by three or more authors, the first name followed by et al. should be used in the text on all occasions. If several papers by the same author and from the same year are cited, a, b, c, etc. should be put after the year of publication.

References should be listed in alphabetical order at the end of the paper in the following standard form:

Bridge, J.S. 1993. Description and interpretation of fluvial deposits: a critical perspective. *Sedimentology*, 40, 801-810.
Kocurek, G.A. 1996. Desert aeolian systems. In: *Sedimentary Environments and Facies* (Ed. H.G. Reading) 3rd edn, pp. 125-153. Blackwell Science, Oxford.
Middleton, G.V. and Wilcock, P.R. 1994. Mechanics in the Earth and Environmental Sciences. Cambridge University Press, Cambridge, 459 pp.
Shurr, G.W. 1984. Geometry of shelf sandstone bodies in the Shannon Sandstone of southeastern Montana. In: *Siliciclastic Shelf Sediments* (Eds R.W. Tillman and C.T. Siemens), *SEPM Spec. Publ.*, 34, 63-83.

In the references, papers with two authors should follow those of the first named author, arranged in alphabetical order according to the name of the second author. Papers with three or more authors should be ordered following the name of the first author in chronological order. The titles of Journals should be abbreviated as directed in Journal Abbreviations.

Please avoid extensive citations of conference proceedings and unpublished technical/internal reports; citations of articles published in scientific journals are strongly encouraged.

The use of tools for managing bibliography like **Mendeley**, Zotero, Jabref, Endnote (or word processor plug-in already included in office or openoffice/libreoffice packages) are strongly encouraged (for additional info -> https://en.wikipedia.org/wiki/BibTeX). Some bibliography articles databases (in bibtex format) can be already downloaded from the internet or provided by the tutors (e.g. geophysics: https://raw.githubusercontent.com/SEGTeX/texmf/master/bibtex/bib/seg/SEG.bib) .

Users of Mendeley Desktop can easily install the reference style (for the thesis in GEOPHYSICS, please use the “Journal of Applied Geophysics style) by clicking the following link: *http://open.mendeley.com/use-citation-style/journal-of-applied-geophysics*

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Web references

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.