

**GUIDE TO THE PREPARATION AND WRITING OF A THESIS
FOR STUDENTS OF GEOGRAPHY**
(by David L. Higgitt, edited by Jamie Gillen and Alan Ziegler November 2018)

1. INTRODUCTION

1.1 General

The Guide has been prepared to assist Honours Year students in Geography in the writing of their thesis (HT: GE4401). It needs to be read in conjunction with the Department of Geography Handbook which contains general information on the objectives and requirements of the thesis, and also provides details of the services and materials that are provided by the Department to assist students working on their thesis. Students undertaking the ISM (GE4660), Masters Thesis or PhD may also wish to take note of the style guidelines, although the expectations and assessment criteria will differ.

This Guide deals as simply as possible with questions of format and presentation of the thesis, and its objective is to establish and maintain a degree of consistency of presentation within a narrow range of conventions. It is not that the suggested conventions are the only acceptable ones for theses; but they do provide a basis for consistent presentation of material which is the important principle.

In order to meet the standards expected, students are reminded that the technical tasks involved in the preparation and writing of the thesis are quite demanding and require careful budgeting of time for proof reading and other checking of the thesis before it is bound and handed in.

Important information related to the HT process is available on the department's website: http://www.fas.nus.edu.sg/geog/undergrads/und_honprog.html

1.2 The Honours Thesis (HT)

The HT is primarily a scholarly exercise in which the students formulate their research problems and carry out the research projects themselves. If the project involves carrying out a large-scale data collection, for example interview surveys of over 100 respondents, it is acceptable to call on the assistance of friends and family but under no circumstances should students employ professional interviewers for their projects. A student should not receive remuneration or other financial support from their advisor for research presented in their HT. Any part of the thesis published in a research report or article jointly authored with the advisor, or solely authored by the advisor prior to the submission of the HT is not eligible for examination as part of the HT.

The deadline for submission of the completed thesis is typically the first week of classes during Sem 2 from AY 2014-2015 onwards. On or before the deadline date you must submit all parts of your HT to the department. You are asked to submit an e-copy on thumb drive and two **ANONYMOUS** paper, ring-bound copies. The e-copy includes all identifying criteria. The two anonymous paper, ring-bound copies should be free of any author identifying criteria, including

acknowledgements and geography or BES qualification. The content in each ring-bound copy must be identical; they will be checked for consistency. Submissions must be before 5pm on the set deadline so as not to incur penalties.

Please submit your HT materials to Ms Sakinah Yusof, in the Map Library (AS2 02-02).

Extensions (without penalty) to complete the HT may be permitted only under very special circumstances with the permission of the Head of Department and the support of the advisor. Supporting documentation (e.g. medical evidence) will be required and a revised date of submission will be imposed. Where an extension has not been granted, a penalty of 4 marks will be assigned. An additional rate of 1 mark per day will be assessed up to day 21, for which the total penalty is 25 marks.

No HT will be accepted beyond 21 days (3 weeks) after the submission date.

The maximum permitted word length is 12,000 words excluding tables, figures, bibliography, appendices, but including footnotes. A document outlining what is included in and excluded from the word count is available on the NUS Geography HT website.

In previous years, abuse of style guidelines resulted in a number of HTs running over the 12000 word limit. Students created figures, tables, picture files, “boxes”, and screenshots to house respondent quotations. In response to this we have clarified how figures and tables are to be used. Figures and tables are to be used when appropriate and to synthesize information and represent data (eg., timelines, graphs, a table identifying important texts in a given sub-discipline, are permitted). Figures and tables are not to be used for individual respondent quotations and academic article passages. They are not to be used to convey the remarks of a person or author. Please refer to journal articles from your sub-discipline for further guidance. Students who use tables and figures to include participant responses will be penalized for excess words.

The penalty for excess words in the thesis is:

1 - 999 words	2 marks
1,000 - 1,999 words	5 marks
2,000 - 2,999 words	10 marks
>3,000 words	15 marks

Please indicate the total number of words on the last page of your thesis.

There are prerequisites for those wishing to pursue an Honour’s Thesis and for those pursuing an Honour’s degree by courses. These are as follows:

Cohort 2013 onwards if you qualify **for the HY** (110 Units, including 60 Units in Geog), you have **2 options**:

- **Thesis-based**: HT + GE4102 + four 4000-level elective courses (Subject Average Point (SJAP)≥4.0, Grade Point Average (GPA) ≥3.5). Must also

pass GE3240. Students may request a waiver of the SJAP pre-requisite from the department if they have a minimum GPA of 4.25 after completing 110MCs.

- **Courses-based:** eight 4000-level Courses. One can be an **Independent Study (ISM) GE4660**. You have to ensure that you have enough level 4000 courses to cover graduation requirements (GPA ≥ 3.2)

2. GENERAL LAYOUT OF THESIS

The following are to be included in the thesis:

(1) Preliminary pages in the following order:

Title Page (the title should be succinct)

Abstract and list of key words

Table of Contents, listing Chapter titles and subheadings by page, and including Appendices

List of Tables by page

List of Figures by page

List of Plates by page

Acknowledgements.

(2) Body of the thesis

(3) References

(4) Appendices

3. ABSTRACT AND KEY WORDS

An abstract of up to 300 words summarizing objectives and conclusions, must be included. A list of about six KEY WORDS should also be included on the same page, below the abstract.

4. ACKNOWLEDGEMENTS

The purpose of Acknowledgements is to acknowledge formally the help of individuals and institutions who have assisted towards the completion of the thesis. This may include, for example, the provision of unpublished information, or equipment, material assistance in the form of funding, or advice and supervision. Any specific assistance provided by the advisor or other members of staff, such as help in conducting interviews or data analysis, should be spelled out in precise terms.

Entries in Acknowledgements should be treated as seriously as entries in References and the use of full and correct names of people and institutions is important. While it may be appropriate to

record your appreciation of the general support of parents or other family members or friends, it is important to remember that this is a formal part of the published thesis and the record should not be trivialized by expanding the entries unnecessarily, by referring to people by nickname only, or by incorporating private jokes. Reference to general sources of inspiration, whether religious or political, are not appropriate.

5. FIGURES

Graphical material generally forms an important means of presenting information in a thesis and its correct and imaginative use is a hallmark of good writing in geography. The skill lies in the composition more than in execution, although a good standard of draughting is expected. All Figures should be closely relevant to an argument, observation or conclusion contained in the thesis. They should, therefore, be prepared at an early stage so that they integrate with the text. Each Figure should be self-explanatory with all necessary information contained in a title and key. Figures reproduced from other sources (published works or the internet) must be fully referenced. Note that in most cases such figures can be adapted or redrafted to maximize effectiveness.

Students are expected to prepare their own Figures as part of the discipline of thesis preparation and only in exceptional circumstances, and with the knowledge of the advisor, should they seek assistance, in which case appropriate acknowledgement must be made. Graphics should be kept simple and effective, without unnecessary embellishment such as shadows to bars and lines in graph. Students are generally advised to avoid the use of colour in figures, unless essential. The cartographic staff cannot undertake graphical work for students but are available for advice on matters of draughting, use of materials, and reproduction of Figures.

Photographic plates can either be referenced under a separate listing of Plates, or included in the list of Figures. Photographs are often invaluable and sometimes indispensable in a thesis. Nevertheless, they should be used with discretion and for the same purposes as other Figures: i.e. to support an argument or conclusion, or perhaps to illustrate a process and its consequences. There is no requirement for photographs to be printed on photographic paper.

Figures should be placed in the body of the thesis as close as possible to the first reference to them in the text. Each Figure is numbered according to its place in the text, preferably by Chapter (e.g. Figure 2.1). Reference to a Figure should be placed in parenthesis at the end of a sentence e.g.(Figure 2.1), not (see Figure 2.1). If on a separate page, the Figure page is numbered in sequence.

6. TABLES

Tables provide the main means of presenting data as evidence in support of an argument, interpretation or conclusion, and need to be structured carefully to assist the reader. Each Table should be complete in itself and not rely on explanation elsewhere. Thus, units measurement and other points requiring clarification should be explained in footnotes to the Table. The reference within the Table to the footnote should be by letter or number placed above the main

line of the print. Footnotes should follow the form of other footnotes in the text. The source of the information contained in the Table should be noted beneath the Table and footnotes. Each Table is numbered according to its place in the text, preferably by Chapter (e.g. Table 2.1) and has a title which reflects as precisely as possible the contents of the Table. The title is placed immediately above the table.

Generally, Tables should be restricted to numerical information. Each row and column should have a heading, with column headings underlined or italicized. Reference to Tables within the text should be within parentheses, preferably at the end of a sentence e.g. (Table 2.1). The last item below the Table should identify the source of information, if it is not based on original material.

Example

TABLE 1. PARTICLE SIZE DISTRIBUTION OF RENGAM SOIL SERIES

DEPTH (cm)	HORIZON	PARTICLE SIZE DISTRIBUTION (%)			TEXTURE (ACCORDING TO U.S.D.A. CLASSIFICATION SCHEDULE)
		Sand	Silt	Clay	
0-10	A	70	2	28	Sandy clay loam
10-30	B ₁	61	1	38	Sandy clay
30-70	B ₂	57	3	40	Sandy clay
70-160	B ₂	55	2	43	Sandy clay

Source: Rahman, 1992.

TABLE 3. REGIONAL OFFICE AUTONOMY FOR DIFFERENT
BUSINESS DECISIONS

DECISION AREA	INDEX SCORE*
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Opening/closing sales outlet	3.28
Opening/closing production unit	2.45
Entering new country for sales	3.19
Entering new country for production	2.67
Selection of new product/service	3.25
Investing over \$10 million	2.35
Investing over \$5 million	2.37
Investing over \$1 million	3.02
Investing over \$0.5 million	3.07
Raising of capital investment funds (up to investment limit)	2.46
Changing advertising agency	4.03
Changing accountants	2.93
Changing data processing systems	3.08
Setting of sales/output target	3.48
Marketing budget	3.39

* Index score based on a scale of 1 (low autonomy) to 5 (high autonomy): using this index the score range can be interpreted as follows:

1. decided by HQ alone
2. decided by HQ after consultation
3. decided by OHQ subject to HQ approval
4. decided by OHQ after consultation with HQ
5. decided by OHQ without reference to HQ

7. FORMAT OF THE THESIS

7.1. Spacing and Indentation.

Set the body of the thesis double-spaced except that:

- 1) Footnotes should be single-spaced.
- 2) References and Bibliography should be single-spaced with double space between entries.
- 3) Quotations in the body of the text which are four or more lines in length are single-spaced and indented four spaces from the right and left margins.
- 4) The first line of each paragraph is usually indented five spaces.

7.2. Margins.

At least 2.5 cm should be left on all sides and since binding and trimming reduces the margin, leave 4.0 cm on the left-hand side for binding.

7.3 Pagination.

All pages must be assigned a number. For the preliminary pages (title page, abstract, etc) lower case Roman numeral may be used if typed after the text is completed (i,ii,..v). Use of word processors, however, makes this unnecessary. All other pagination should be in Arabic numeral. Appendices may be separately paged from the text.

7.4. Chapter Titles and Subtitles

Chapter titles should be centred and written in bold capitals. Second order subtitles should be bold upper and lower case starting at the left margin. If used, third order headings should be italics or underlined, upper and lower case, and starting at the left margin. No more than three levels of heading should be used.

Thus:

Chapter 3

REGIONAL IMPACT OF GOVERNMENT POLICY

3.1 Introduction

3.2 Impact on Social Services

3.2.1 Rural schools

(Note: numbering of subheadings is not essential but is generally preferred.)

7.5. Quotations.

Quotations used in the text should be enclosed within single quotation marks. Double quotation marks should be used in the case of a quotation within a quotation. Quotations longer than four typewritten lines should be indented five spaces from the left-hand and right-hand margins and should not be enclosed in quotation marks.

Acknowledgement of quotations should immediately follow the quotation with author's name, date of publication and page reference in brackets (Harvard system). Where exact words are not used, there is no specific guideline on when a reference should be given, however, generally a source is needed where an argument or idea has a specific origin and to substantiate any claims or contentious ideas.

If part of the original is omitted from the quotation this should be indicated by three periods (...). Care must be taken to ensure that the meaning of the original statement is not affected. In all other respects the quotation must be faithful to the original and mistakes in the original may be identified by the word (sic) placed immediately after the error. [Insertions in a quotation by the author are enclosed in square brackets].

7.6. Foreign Words

Foreign words used in the text should be underlined or italicized unless they have been anglicized through usage. Use a good dictionary as a guide.

7.7. Taxonomic Names

Common names of plants and animals may be used but the full taxonomic name should be given in brackets, underlined or italicized, on the first usage. The authority should also be included if it is available. Thus: sea morning glory (*Ipomoea pes-caprae*) lallang (*Imperata cylindrica*). Alternatively a list of common and taxonomic names can be included as an appendix.

7.8. Numbers

The recommendation is that all numbers ten and under be written in words, but numbers greater than ten be written in numeral form. Never start a sentence with a numeral.

7.9. Metrication

All data are presented in S.I. units. Data drawn from earlier sources may be expressed in Imperial Units, with S.I. unit equivalents in brackets, except that when used in Tables involving both types, such as time series, all should be expressed in S.I. units.

A list of SI units is available at: <http://physics.nist.gov/cuu/Units/units.html>

A unit conversion tool is available at: <http://www.convert-me.com/en/convert/length>

8. DOCUMENTATION AND REFERENCING

There are two main forms. The one most common in scientific writing is known as the Harvard System, and the other, used in historical and literary writing, as Footnote Referencing. The Harvard system is favoured in Geography and is to be followed in the HT, unless the subject material demands use of footnotes. In the event of the latter, this section briefly outlines a system for footnote referencing after first explaining the Harvard system. Both emphasize consistency of presentation and full citation in order to assist readers in evaluating, or building onto, the research and scholarship of others.

8.1. HARVARD SYSTEM OF REFERENCING

There are three main features of the Harvard system:

1) References cited in the Text

Author's surname, date of publication and possibly a page reference (in the case of a quotation) in brackets in the text, at the end-of the quotation or the sentence or clause that is relevant i.e. (Johnston,1999:22). If the author's name is in the text then include date only i.e. Johnston (1999) noted that ...

If more than one work by one author, published in the same year, is cited, the separate pieces should be distinguished by small case letter after the date i.e. (Franklin,2002a), and if this occurs in a single reference they should be arranged chronologically i.e. (Bedford,2001a, 2001b, 2004). Joint authors i.e. A recent study (Hargreaves and Hearn, 2002) ... Where there are more than two authors use the abbreviation *et al.*, i.e. (Baker *et al.*, 1997).

Where several authors are included in a single reference these are organized chronologically and separated by semi-colons i.e. (Johnstone, 1985, 1992b; Smith, 1994; Clark, 1996). If confusion is likely because several authors have the same surname, initials should be used i.e. (Johnston, D.C., 2003). Otherwise do not include initials within references.

Where there is no author identified, the publishing organization should be cited i.e. (Singapore Institute of Standards and Industrial Research, 1993; Ministry of Education, 2002). If preferred the name of the organization can be abbreviated to initials, providing the full name is apparent from the reference list.

Where an internet source is being referenced, identify the author of the web page and the date of publication, rather than the URL. Where there is no author identified, the organization publishing the web page should be identified i.e. (UNESCO, 2004). If the date of publication cannot be determined used the abbreviation n.d (not dated) i.e. (United States Geological Survey, n.d.).

2) List of References

A list of References arranged alphabetically by author, and chronologically for each author is placed at the end of the thesis but before the Appendices. Where an author is cited individually and as a first author of a joint paper the joint works should follow the individual items. Initial and final page numbers should be provided for articles in journals and books.

In listing references a different format is used for different types of material. Examples are:

Birkin, M., Clarke, M. & Wilson, A.G. (1984) 'Interacting fields: comprehensive models for the dynamical analysis of urban spatial structure', Paper presented to the 80th Annual AAG meeting, Washington DC, April 1984.

Bray, R.C.L. (1988) *Place Imagery in Small Towns: A Cross-Cultural Study of Perth, Ontario and Hebden Bridge, West Yorkshire*, unpubl. Ph.D. dissertation, Department of Geography, University College London.

Chanda, N. & Tasker, R. (1992) 'The gem stampede: round-the-clock mining by Thai companies', *Far Eastern Economic Review*, 30 July, 20.

Eyles, J. & Smith, D.M. (eds.) (1988) *Qualitative Methods in Human Geography*, Cambridge: Polity Press.

Schoenberger, E. (1989) 'New models of regional change', in R. Peet & N. Thrift (eds.) *New Models in Geography, Volume 2: The Political-Economy Perspective*, London: Unwin Hyman, 115-41.

Ruthenberg, H. (1980) *Farming Systems in the Tropics*, 3rd ed., Oxford: Oxford University Press.

The New Straits Times, Kuala Lumpur.

A suggested format for internet sources:

COPERNICUS (1991) 'COPERNICUS University Charter for Sustainable Development' Available at: http://www.copernicus-campus.org/sites/charter_index1.html (accessed March 2003).

3) Footnotes and endnotes

Footnotes should be kept to a minimum. They may be used in association with the Harvard system, or more often are gathered as Notes at the end of each chapter, to expand or explain a statement in the text, when such an explanation, if included in the text, might destroy the continuity of argument or description. Thus, definitions of technical terms, or detailed qualifications of an argument, might be dealt with in this way. But footnotes must be kept to a minimum.

Footnotes are referenced in the text by numbering consecutively through the chapter, with the number placed at the end of a clause or sentence that is appropriate, above the line (superscript).

8.2. FOOTNOTE REFERENCING

Footnotes can serve four functions:

- (a) To acknowledge the source of quotations;
- (b) To refer specifically to an authority even if a direct quotation is not used;
- (c) To give cross references to another part of the text;
- (d) To expand or explain a statement when such an explanation, if included in the text, would destroy the continuity of an argument or description.

Footnotes are numbered consecutively through each chapter, with the number inserted in the text, above the line (superscript), usually at the end of a sentence or in some

circumstances, the end of a clause or phrase. Footnotes are placed at the foot of the page in sequence, single-spaced, and are separated from the text by a line.

1) Citation of References in Footnotes

The citation of references in footnotes varies according to the placing of the reference. Thus:

1) First Reference

Books

1. Doreen Massey, *Spatial Divisions of Labour*, London, 1984, p. 62.

Articles

5. R. J. Johnston, 'Multivariate regions - a further approach' *The Professional Geographer*, Vol. 17, 5, pp. 9-12.

Articles within a Volume

3. Robert M. Kirk, 'Managing the coast', in P. G. Holland and W. B. Johnston, *Southern Approaches*, Canterbury, 1987, 239-260.

Theses

4. Andrew Swales, 'The effect of urbanization and consequent sediment generation on an estuarine environment' M.A. Thesis, University of Auckland, Auckland, 1988, p. 53.

Subsequent References

Once a complete citation has been made subsequent reference can be shortened:

References immediately following

3. Robert M. Kirk, 'Managing the coast', in P. G. Holland and W. B. Johnston Southern Approaches, Canterbury, 1987, 239-260.
4. ibid, p. 242.

References separated by citation of other references

If no other work by the same author intervenes use op. cit., i.e.

9. Kirk, op. cit. p. 258.

2) Bibliography

All works cited in footnotes are assembled in a Bibliography, listed alphabetically, similar to the list of References previously described. In this system it is acceptable to divide the Bibliography into sections e.g. official publications, unpublished material, etc. If manuscript material is being used as much information as is necessary to trace the material should be included.

9. APPENDICES

Appendices are used to include material which is not essential to the argument contained in the text and is too long or substantial for inclusion as a footnote. Thus some tables may be better included as Appendices; similarly examples of questionnaires would be included in this way or details of laboratory procedures. In general participant quotations should not be included in appendices.

10. QUESTIONS OF STYLE

Keep in mind George Orwell's six elementary rules ("Politics and the English Language", 1946):

- (1) Never use a METAPHOR, simile or other figure of speech which you are not used to seeing in print.
- (2) Never use a long word where a SHORT WORD will do.
- (3) If it is possible to cut out a word, always cut it out.
- (4) Never use a passive where you can use the ACTIVE.
- (5) Never use a FOREIGN PHRASE, a scientific word or a JARGON word if you can think of an everyday English equivalent.
- (6) Break any of these rules sooner than say anything outright barbarous.

ABBREVIATIONS:

In case of words where acronyms or abbreviations are often used, write the words in full on first mention in the text and provide the abbreviations in parentheses. After that, the abbreviation may be used but try not to repeat it too often.

Examples: ASEAN (for Association of Southeast Asian Nations), UN (United Nations), AAG (Association of American Geographers), Research and Development (R&D), etc.

If the abbreviation can be pronounced (e.g. NAFTA, ASEAN, UNESCO), it does not generally require the definite article. Other organizations - except companies - should usually be preceded by "the" (e.g. the AAG, the UN, the BBC).

For acronyms which denote different words, such as MP (which could mean Member of Parliament or Military Policeman), use the abbreviation only after spelling out the words in full.

For units of measurement, spell out the entire word if the abbreviation is uncommon (e.g. litres, acres). For common abbreviations, the use of abbreviations is acceptable and need not be written out in full even on first mention (e.g. ha, mm, cm, m, km, °C, km², ms⁻²). In most cases, the lower case is used for abbreviations of measures.

Other commonly used abbreviations:

e.g. (for example) and i.e. (that is) -- may be used in a bracketed phrase, without the comma. Full words are to be used in unbracketed text.

Examples:

.... in many Third World cities (e.g. Manila, Bombay, and Mexico City)

.... in many Third World cities, for example, Manila, Bombay, and Mexico City.

The USA, the USSR, except when there are a string of examples when the "**the**" can be deleted.

DATES

Do not put commas in dates, so:

Monday 5 (no th) July

5-7 July 1987

5 July - 5 August 1987

1987-88

1980s (not 1980's)

from the 1960s to the 1970s

Write out: **twentieth century, twentieth-century ideas** but **a man in his 20s, and 20th anniversary**.

Second World War and **World War II** are acceptable.

11. COMPLETION OF MANUSCRIPT

The presentation of the thesis is important, especially as a measure of the organizing ability of the candidate. All of the final tasks of assembling and collating material, checking Tables, preparation of Figure captions, and proof reading, are more time-consuming than students generally assume. Have someone else assist with proof reading (if their patience has not yet been exhausted by this stage!). Leave yourself ample time for these tasks and make a firm date for binding well before handing-in date.

Copies of the completed thesis should be distributed sparingly, and certainly not before the examination procedure is completed and results have been published. If students undertake to

supply a report to a funding agency then this obligation might best be met by preparing a separate and modified version of the thesis.

12. PLAGIARISM

The University and the Department of Geography takes plagiarism very seriously. In AY2013-2014 we implemented a mandatory plagiarism check on all submitted HTs through your e-copy submissions.

13. ASSESSMENT CRITERIA (expanded version on HT marking criteria sheet)

Intellectual Framework:

- Clear statement of objectives
- Knowledge of and critical engagement with existing literature
- Positioning study within broader literature
- Strong and logical conceptual framework

Research design, methods and techniques

- Explanation of research design
- Appropriateness and justification of methods and techniques to research question
- Critical evaluation of methodology and problems that arose
- Ethical considerations addressed
- Recognition of other possible approaches

Analysis and interpretation

- Clear, thoughtful and critical analysis
- Soundness of arguments
- Findings linked to literature, conceptual framework and stated objectives
- Appropriateness of conclusions drawn from analysis
- Wider implications of the analysis

Presentation, style and structure

- Grammar, expression and clarity of writing
- Quality of data presentation (diagrams, tables etc.)
- Quality of referencing and bibliography
- Coherence, balance and internal unity of whole thesis

14. HT MARKING PROCESS

Beginning in AY 2014-2015 HT will not be marked by advisors. Instead, the Honour's coordinators will choose two blind reviewers for each HT. These reviewers will be chosen on the basis of cognate research interests.