



RIGA TECHNICAL UNIVERSITY
Institute of Energy Systems and Environment

and

VILNIUS GEDIMINAS TECHNICAL UNIVERSITY
Department of Environmental Protection and Water Engineering

THESIS FORMATTING GUIDELINES
WITHIN THE DOUBLE DEGREE
PROGRAM
“ENVIRONMENTAL SCIENCE”

RTU IESE & VGTU DEP – 2019

INTRODUCTION

These guidelines have been prepared to help graduate students prepare their theses for acceptance by Riga Technical University (RTU) and Vilnius Gediminas Technical University (VGTU) within the double degree program “Environmental Science”. All theses must be prepared according to format requirements described in this guide. The Thesis format guidelines ensure that theses are uniformly presented and appropriately formatted for the defense and graduation of the master’s program. Thereof, students should carefully review this guide. The format requirements dictate such matters as: typeface and quality, spacing, margins, page numbering, placement of notes, headings, formatting of tables, figures, title page, citing and referencing, etc.

Any questions about the contents of the guidelines should be directed to the format advisors: Marta Delle (RTU) and Vaida Šerevičienė (VGTU). The format advisors are concerned solely with the format of the Thesis. It is the advisors’ responsibility to make certain that Thesis submitted for defense of master’s degree in the RTU and VGTU conforms to the regulations outlined in this guide. Responsibility for the content of any Thesis remains with the student, his supervisor(s) and the program advisor(s).

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PURPOSE AND INTENDED LEARNING OUTCOMES OF A MASTER'S THESIS

The master's thesis is a carefully argued scholarly paper. It should present an original argument that is carefully documented from primary and/or secondary sources. The Thesis must have a substantial research component and a focus that falls within arts and science, and it must be written under the guidance of a supervisor. As the final element in the master's degree, the Thesis gives the student an opportunity to demonstrate expertise in the chosen research area.

The purpose of a Thesis is to enable the student to develop deeper knowledge, understanding, capabilities and attitudes in the context of the specific study program. The thesis should be written at the end of the program and offers the opportunity to delve more deeply into and synthesize knowledge acquired in previous studies. A Thesis for a Master of Science programs should place emphasis on the technical and scientific aspects of the subject matter. The overall goal of the Thesis is for the student to display the knowledge and capability required for independent work as a Master of Science. Specific learning outcomes for a Master's thesis are for the student to demonstrate:

- Considerably more in-depth knowledge of the major subject/field of study, including deeper insight into current research and development work,
- Deeper knowledge of methods in the major subject/field of study,
- A capability to contribute to research and development work,
- The capability to use a holistic view to critically, independently and creatively identify, formulate and deal with complex issues,
- The capability to plan and use adequate methods to conduct qualified tasks in given frameworks and to evaluate this work,
- The capability to create, analyze and critically evaluate different technical/architectural solutions,
- The capability to critically and systematically integrate knowledge,
- The capability to clearly present and discuss the conclusions as well as the knowledge and arguments that form the basis for these findings in written and spoken English,
- The capability to identify the issues that must be addressed within the framework of the specific thesis in order to take into consideration all relevant dimensions of sustainable development,
- A consciousness of the ethical aspects of research and development work.

GENERAL PROVISIONS

1. The layout of the Thesis has to comply with the general formatting regulations set for scientific manuscripts and project documentation.
2. The Thesis must consist of approximately 80 pages (excluding appendices and list of references). In addition, the total size of the Thesis must be chosen so as to completely cover the specific topic and reach the aim of the Thesis.
3. The recommended structure of the Thesis is as follows:
 - a. Introductory part 3-5%
 - b. Main research part (including literature review, methodology, results) 92-95%
 - c. Conclusions and recommendations 2-3%
4. Requirements for the arrangement of the Thesis slightly differ for submission in RTU and VGTU:

RTU	VGTU
1. Title page (see App. 5)	1. Title page (see App. 1)
2. Signature Page (see App. 6)	2. Signature Page (see App. 2)
3. Declaration of authorship (see App. 7).	3. Declaration of authorship (see App. 3).
4. Confirmation of the Thesis' submission to the ORTUS system (see point 82)	4. Confirmation of the Thesis' submission to the UIS subsystem (see point 83)
5. Supervisors' task	5. Objectives for Master's Thesis (see App.4)
6. Annotation in three languages (English, Latvian, and an optional language)	6. Annotation in two languages (English and Lithuanian)
7. Table of contents	
8. List of figures	
9. List of tables	
10. Abbreviations	
11. Introduction	
12. Literature review*	
13. Methodology	
14. Results and discussion	
15. Conclusions and recommendations	
16. References	
17. List of author's publications [†]	
18. List of author's presentations [‡]	
19. Appendices	

5. The title page, signature page, declaration of authorship and supervisors' task page are formatted in compliance with the templates provided in the appendix.
6. The Introduction should be subdivided into following sections: Problem, Actuality of the study, Aim of the study, Objectives, Object, Novelty, Practical significance, Hypothesis.
7. Conclusions should be provided after each main chapter, where the main ideas, results and conclusions are summarized.
8. The sections of Methodology, as well as Results and discussion should include detailed description of all the research methods used (e.g. theoretical, experimental, modelling) in the Master's thesis.

TECHNICAL FORMATTING

Body text

9. The **text** should be written using *Times New Roman* style, font style – Regular, single space between the lines and font size 12pt. The alignment of the text should be justified.
10. The following **margins** are imposed: top and inside margin – 3 cm; bottom and outside margin – 2 cm; header and footer – 1,3 cm. Header and footer are left blank. The inside and outside margins are defined as the Thesis must be printed two-sided (on both sides of a page

* The number of chapters and their titles may vary. The examples given here (Literature review, Methodology, Results and discussion) are common, but individual Theses may have different numbers of chapters and/or different titles.

[†] Copies of the publications should be provided in the Appendices section

[‡] Certificates of the attended conferences, seminars and other events should be provided in the Appendices section

– starting from the Table of contents). Thereof, „Mirror margins“ have to be defined (can be done in MS Word tab „Page Layout“ → „Pages Setup“ → „Margins“ → choose „Mirror margins“ at Multiple pages and „Apply to Whole document“). All Thesis materials must fit within these margin requirements (including tables, figures, graphs and page numbers). When full-page prints of photographs are desired, the image area of the print must conform to the same margins as the text.

11. A new paragraph is indicated by **indenting** the first line with 1 cm. No spaces between the paragraphs are required.
12. All pages must be **numbered** with Arabic numerals placed in the bottom outer edge of the page (choose Different Odd & Even Pages). It is not recommended to use any lines, points or other signs before and after the number. There are no page numbers written on the first pages (up to the lists of tables and figures), but they are considered in the total number of pages. Thus, page numbers are placed on pages starting with the Abbreviations section.
13. **Reference notes** may be placed at the bottom of the page, at the end of the chapter, or at the end of the Thesis before the reference list. **Footnotes and endnotes** should be numbered with Arabic numerals and should be in *Times New Roman* style, font style – Regular, single space between the lines and font size 10pt.

Headings

14. Each chapter of the Thesis starts on a new page. Sub-chapters are continued on a started page. Titles and headings should clearly stand from the previous text by 12 mm and from the following text by 6 mm.
15. Chapter titles are written in capital letters, *Times New Roman* style, font style – Bold, and font size 14pt. Sub-chapter headings are written with the first capital letter only following with small letters, *Times New Roman* style, font style – Bold, and font size 13pt. Titles and headings are placed in the center of the page with no indention from the left side.
16. Syllabification, letter underlining and full stops are not applied in the titles and headings.
17. The main parts of the Thesis are numbered in sequence, and the numbers are placed before the title. The chapters are numbered applying Arabic numerals, e.g., 1., 2., etc. The sub-chapters are numbered in sequence with the chapter number applying two Arabic numerals, e.g., the numbers for the sub-chapters within the first chapter shall be 1.1., 1.2., etc. If the sub-chapter comprises multiple sections, then they are numbered within the particular sub-chapter applying three Arabic numerals, e.g., 2.2.1., 2.2.2., etc. For indicating sub-sections Arabic numerals or small letters with a round bracket are used, e.g., 1), 2) or a), b), etc. The text after the number is written with the first capital letter. Only the main research chapters, i.e. Literature review, Methodology, Results and discussion, are numbered. The rest are left with no numbering.

Tables and figures

18. Figures and tables are most effective when they are clear, self-explanatory, accurate, easily understood and remembered. In general, tables and figures should have enough explanation in their captions (titles) to stand alone.
19. Tables and figures (graphs, charts, drawing, and photographs) must be embedded in the document. They should be placed between paragraphs, after (or near) their first mention in the text.

20. Figure captions have to be placed below the figures and **not** in “text boxes” linked to the figures. Table titles have to be placed above the tables.
21. A minimum of one sentence summarizing what the figure/table shows or illustrates should be included in the text. Also it should be verified that the figures and tables mentioned in the text actually exist.
22. The **figures** are placed centered with no indentations. The figures are numbered within the corresponding chapter (e.g. Figure 1.3. denoting the third figure in the first chapter). Each figure should be given a title (caption). If the Thesis contains only one figure, it is not numbered, but it is given a title. The number and caption of the figure are placed centered symmetrically below the illustration.
23. The word „Fig.“ should be followed by one space, an Arabic numeral, a period, one blank space, the caption with only the first word and proper nouns capitalized, and no period at the end. The style used for figure captions is *Times New Roman*, font style – Regular, and font size 12pt.
24. The space before and after the figure, its caption and text is 12pt.

For example, the third figure in the first chapter should be formatted in the following way:

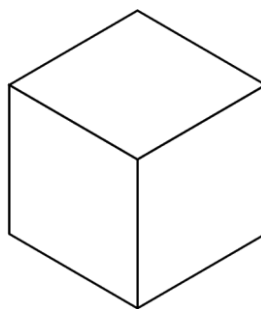


Fig.1.3. The title of the figure

25. If some explanatory notes are required for the figure, they can be placed below the title. Explanatory notes should be given in a smaller size letters, i.e. 10pt.
26. A reference to a figure should be given in the text and typed as Fig. 1 or Figs 2 to 4, with “Fig.” capitalized and abbreviated (unless it is the first word in a sentence) and without period at the end (unless the reference appears at the end of a sentence). E.g., „...the process is illustrated in the scheme provided in Fig.1.3.“, „Figure 1.3 shows...“, or „...(see Figs.1.3 and 2.4)“.
27. The recommended font in a figure is *Times New Roman*, same size as the text. Figure lettering should be large enough to be readily legible when the drawing is reduced. Axes titles on graphs must be labeled with words rather than symbols. As an example, an axe should be labeled as the quantity “Pressure” not just “*p*”. Units should be put in parentheses.
28. If a figure has two (or more) parts, authors should include the labels “(a)”, “(b)”... as part of the figure.
29. If scanned figures are provided, they have to be clear, with all the legends and data labels easily readable. If this is not possible, the author must redraw the figures especially in the case of simple one. Illustrations borrowed or adapted from another source have to be properly cited.

30. The **tables** provided in the Thesis should be numbered and they should have captions. The tables are placed centered with no indentations.
31. The caption of a table is placed right-sided above the table with no indentations. The word Table should be followed by one space, an Arabic numeral, a period, one space, and caption, with only the first word and proper nouns capitalized, and a period at the end. Tables are numbered within the corresponding chapter with Arabic numerals (e.g. Table 1.3. denoting the third table in the first chapter). If the Thesis contains only one table, it is not numbered, but it is given a title. The space before and after the table caption should be 12pt and 6pt, respectively.
32. Tables should be as simple as possible. The text in the table should be written using Times New Roman style, single space between the lines and font size 12pt (the size of the fonts can be decreased till the readable values (not less than 9pt). Tables should have single horizontal lines (½ pt) above and below column headings and subheadings, and at the bottom of the table (if it is necessary the authors may put the horizontal lines between the rows). Limit the number of columns to fewer than 10, since the use of many columns will create readability problems. Vertical lines and shaded areas should be avoided where possible. Fancy frames or borders around tables should not be used.
33. All tables should be prepared using Word’s table-making features. Tables should be fitted in the page, by using AutoFit option: first “AutoFit-to-Contents” and then “AutoFit-to-Window”. Any of the other options under the Table menu such as: Insert, Delete, Merge cells, Distribute columns evenly, Align text etc., to adjust the cells can be used.

For example, the third table in the first chapter should be formatted in the following way:

Table 1.3. Title of the Table

Month	ρ_{cs} , %	ρ_{ps} , %	ρ_{os} , %
JAN	5.88	36.88	57.24
FEB	6.79	45.65	47.57
MAR	5.48	40.40	54.12
APR	16.39	51.58	32.03
MAY	11.18	45.27	43.55
JUN	12.87	33.68	53.45
JUL	15.94	40.45	43.62
AUG	6.10	50.22	43.68

34. A table should have one extra line spacing after it, followed by other text or objects.
35. A reference to the table should be given in the text and typed as Table 1 or Tables 2 to 4. Authors should not abbreviate “Table” and should not put period after number, unless the reference appears at the end of a sentence. E.g., „...as it can be concluded from the data provided in Table 1.3., ...“, „Table 1.3 shows data from...“, or „...“(see Table 1.3)“.

Equations

36. The mathematical formulas and equations included in the Thesis are placed in the text, however, each formula is written on a separate line. The symbols used in equations have to be explained below the formula. The formulas are numbered with Arabic numerals, which are placed in the brackets on the right of the formula, within the corresponding chapter. If there is only one formula in the Thesis, it is not numbered.

For example, the first equation in the second chapter should be formatted in the following way:

$$m = \frac{V \cdot M}{V_0} \quad (2.1)$$

where

m – mass, g

V – volume, l

M – molecular weight, g/mol

V_0 – molar volume of an ideal gas at standard temperature and pressure, l/mol.

37. If the formula comprises multiple lines, then the number of the formula is given in the brackets on the right of the last line of the formula.
38. When a reference to a formula is provided in the text, its number is provided in the same way – in the round brackets. Equations should be referred in the text by “Eq. (2.1)” or “Equation (2.1)” if it is in the beginning of a sentence. e.g. “Equation (2.1) is used...”, „.....(Eq.(2.1))“.
39. A recommended order of closures for parenthesis, brackets and braces, is the following:
{[(.....)]}
40. Expressions which are simple, short, and not of major importance can be left in the text, and written in one-line form (e.g., use $\beta = a/b$ for fractions). For expressions within a line of text, regular text and the symbols from Symbol dialog box should be used.

Appendices

41. Some auxiliary materials, which cannot be placed into the main body of the Thesis, are provided in the appendices, under the umbrella title – APPENDICES, placed on a separate page (formatted as a chapter heading without any numbering).
42. Each appendix should start on a separate page. In the top right corner of the page the sequence number of the appendix is provided, e.g., *Appendix 1*, *Appendix 2*, etc. In the center of the next line the title of the appendix is given. If there is only one appendix in the Thesis, the umbrella title is not required, and the appendix is not numbered. The reference to an appendix should be given in the text, e.g., “...the data is provided in the Appendix 1.”, “...(see App.1)”.
43. The page with the umbrella title „Appendices“ is numbered and shown in the Table of contents. Also other pages of appendices are numbered, but are not included in the Table of contents.

CITING AND REFERENCING

44. It is vital that the sources of information that have been used for the Thesis are acknowledged. This will help you protect yourself against charges of plagiarism and also demonstrate that you understand the importance of professional research work.
45. The sources must be acknowledged whenever another person's ideas or points are paraphrased or summarized, or when another person's work is quoted. Also when tables, graphs, figures, etc. are used that have been found from another source, be it from a printed document or from the web, must be acknowledged.
46. There are two steps to acknowledging the used sources:

1. cite your references in the text, to show where you have drawn upon other people's work,
2. list the references at the end of your Thesis under the heading 'References'.

Citing your sources in the text

47. When you refer to another's words or ideas in your coursework, you must cite your source. At an appropriate point in your text, provide the author's surname and the year of publication in round brackets. If you include the author's name in your sentence, only provide the year of publication in brackets, e.g.:

It has been argued (Harris, 2001) that the main considerations are...

It has been argued by Harris (2001) that the main considerations are...

48. For edited books that contain collections of chapters written by different authors, cite the author of the chapter and not the editor of the overall book.
49. If you are citing different publications written by the same author in the same year, label the first one cited with the letter 'a' after the year and the second 'b' etc. e.g. (Smith, 2004a), (Smith, 2004b). You will need to do the same in your list of references.
50. Where two authors have produced the work, include both their last names in your citation e.g. (Cullingworth and Nadin, 2007) or Cullingworth and Nadin (2007).
51. When there are three or more authors use the abbreviation "et al." (and others) after the first author's surname e.g. Tayler et al. (2003) or (Tayler et al., 2003).
52. If you are discussing a point about which several authors have expressed similar views, include them all in one set of brackets in chronological order of publication. List any works published in the same year in alphabetical order e.g. (Midgley, 1994; Smith, 2004; UNCHS, 2006; Gandelsonas, 2012).
53. Where possible you should aim to reference from the original source. However, sometimes you may need to cite an author whose work you have not personally read, but whose work is presented or summarized by the author of a publication you have consulted. This can be shown as follows:

Rondinelli (1993), cited in Potts (2012, p. 37), describes the stages of a project...

or

A process project might consist of a number of stages including experimentation and production (Rondinelli, 1993, cited in Potts 2012, p. 37).

In your references you should list the source you have actually read, i.e. Potts.

Directly quoting from your sources

54. You should aim to paraphrase information provided by an author in your own words rather than quote large amounts of their work verbatim as this helps to demonstrate to the reader your understanding of the information. It can be necessary to quote directly from the text when you:
- a. Cannot present the information more succinctly or in any other way.
 - b. Need to present a particular portion of an author's text in your work to analyze it.
55. If the quotation is short, enclose the writer's words in double quotation marks and then cite the author, date and page number, e.g.:

Key causes of economic deprivation include low income or unemployment which are often the result of “poor qualification levels and lack of basic skills” (Thake and Saubach 1993, p. 18).

56. Longer quotations should be separated from the body of your text and indented from the left-hand margin. When you indent a quotation, there is no need to include quotation marks, e.g.:

As Joia and Sanz (2005, p. 5) observe:

In specific terms, it might be imagined that the benefits of web consumer retention would only seem to be advantageous for digital companies that are client-centric, which can interact with these consumers. Furthermore, the mere fact of using transactional practices, low differentiation between products and the emphasis on promotion of price on the web would seem to increase sensitivity to price.

In the current fiercely competitive internet commerce climate it would seem that these observations might well be borne out.

57. If you omit some words from the quotation, you need to indicate this by typing in three dots, e.g. “The state has an essential role ... in the legal definition of property rights” (Deininger 2003, p. 69)
58. If you add some of your own words within the quotation, place your words in [square brackets] to make it clear which are the author’s words and which are yours. Remember to quote exactly as the words appear in the original: do not add bold or italics.

Referencing

59. Referencing means giving a full description of each source you have cited in the text, in a list of references or bibliography, at the end of your coursework (under the heading REFERENCES).
60. Write the list in alphabetical order: put the first author’s last name first and then his/her initials.
61. Include the names and initials of all authors. Arrange any references with the same author by the year of publication, beginning with the oldest.
62. Titles should be italicized for books, reports and conference proceedings. For journal articles, the title of the journal (not the title of the journal article) should be printed in italics.
63. Capitalize the first letter of each author’s last name and each initial. Also capitalize the first letter of the publication title written in italics, the first letters of all main words in the title of a journal and all first letters of a place name and publisher.
64. The references should be written using *Times New Roman* style, font size 12pt. Single space between the lines should be used. The space before and after each reference should be 6pt. The alignment of the text should be justified. Each new reference has indentation hanging by 1.5 cm.

Example:

Cooke, D.J. and Philip, L. 2001. To treat or not to treat? An empirical perspective.
In: Hollin, C.R. ed. Handbook of offender assessment and treatment.
Chichester: Wiley, pp. 3-15.

Potts, D. 2002. Project planning and analysis for development. Boulder, Colorado:
Lynne Reinner.

Redknap, M. et al. eds. 2001. Fourth International Conference on Insular Art. National Museum & Gallery, Cardiff, 3-6 September 1998. Oxford: Oxbow.

The general provisions for organizing references

65. Book

You need to include the following information:

Author. Year. *Book title*. Place: Publisher.

Example:

Potts, D. 2002. *Project planning and analysis for development*. Boulder, Colorado: Lynne Reinner.

If there are three or more authors include all their names or just write the first author's name and then write *et al*. If the book is in its second edition or beyond, you also need to include this information in the reference:

Seifert, K. L. et al. 2000. *Lifespan development*. 2nd ed. Boston: Houghton Mifflin.
Seifert, K. L., Hoffnung, R.J. and Hoffnung, M. 2000. *Lifespan development*. 2nd ed. Boston: Houghton Mifflin.

66. Book chapter

Edited books contain collections of chapters which are written by different authors and collated by an editor or editors. To reference a chapter in an edited book you need to record the following details:

Chapter Author(s). Year. Title of chapter. In: Book Editor ed/eds. *Book title*. Place: Publisher, chapter page numbers.

Example:

Cooke, D.J. and Philip, L. 2001. To treat or not to treat? An empirical perspective. In: Hollin, C.R. ed. *Handbook of offender assessment and treatment*. Chichester: Wiley, pp. 3-15.

67. Journal articles

You can reference both print articles and their electronic equivalents. To cite a journal article you will need to record the following information:

Author. Year. Article title. *Journal Title* volume(issue), pages.

Example:

Waterson, M. 2003. The role of consumers in competition and competition policy. *International Journal of Industrial Organization* 21(2), pp. 129-50.

68. Conference paper

If you are citing an individual paper within the conference proceedings, the author of the paper should be the first element of the reference. The page numbers of the paper, within the proceedings as a whole, should be included.

Example:

Fledelius, H.C. 2000. Myopia and significant visual impairment: global aspects. In: Lin, L.L.-K. et al. eds. *Myopia Updates II: Proceedings of the 7th International*

Conference on Myopia. Taipei, 17-20 November, 1998. Tokyo: Springer, pp. 31-37.

The first element of a reference to a conference proceeding should be the person or organization responsible for editing the proceedings. The place and date of the conference should also be included.

Example:

Redknap, M. et al. eds. 2001. *Fourth International Conference on Insular Art*. National Museum & Gallery, Cardiff, 3-6 September 1998. Oxford: Oxbow.

If no editor is traceable, substitute this with the name of the conference:

Building on the evidence: proceedings of the second conference on evidence-based Practice. 1999. 16-17 April 1999. Norwich: Norfolk Healthcare Trust.

This should be cited within your text (the main body of your coursework) as (*Building on the evidence*, 1999).

69. Report

If there is no individual author, use the name of the organization.

Example:

European Commission. 2004. *First report on the implementation of the internal market strategy 2003-2006*. Luxembourg: Office for Official Publications of the European Communities.

70. Thesis

Be sure to indicate the level (e.g. MA, MSc, or PhD) of the Thesis and the institution at which it was presented.

Example:

Boyce, P. J. 2003. GammaFinder: a Java application to find galaxies in astronomical spectral line datacubes. MSc Dissertation, Cardiff University.

Bin Omar, A. 1978. Peasants, institutions and development in Malaysia: the political economy of development in the Muda region. PhD Thesis, Cornell University.

71. Newspaper article

The format required is similar to that of an academic journal article, except that there will be a precise day of publication, and volume numbers are not usually available or necessary. Also online versions can be referenced like this.

Example:

Benoit, B. 2007. G8 faces impasse on global warming. *Financial Times* 29 May 2007, p.9.

72. Electronic journal article

If the electronic journal article is also available in paper format and if the layout, page numbers, text and images are exactly the same, you can just reference it as you would a print journal article.

For a journal article which is only available online or differs from its print version you will need to include the date when you found it and the URL:

Author(s). Year. Article title. *Journal Title* [Online] volume. Available at: URL [Accessed: day Month year].

Example:

Merchant, A.T. 2007. Diet, physical activity, and adiposity in children in poor and rich neighbourhoods: a cross-sectional comparison. *Nutrition Journal* [Online] 6. Available at: <http://www.nutritionj.com/content/pdf/1475-2891-6-1.pdf> [Accessed: 27 February 2007].

73. Internet sources

Referencing a **web source** can be difficult. If no author is given, web pages can be referenced by the organization responsible or by the title instead. A good web site should, however, have sufficient ownership information to enable you to cite it. If no ownership is detectable, you should question whether the source is of sufficient quality. Ideally you should aim to include the following information:

Author (if available) or Organization. Publication Date. *Document title* [online]. Place: Publisher (if available). Available at: web address of document [Accessed: date you viewed the site].

For an **Internet-based work** by an individual the reference should be given as follows:

Author or Editor (if available). Year (if available). *Title* [Online]. Place: Publisher (if available). Available at: web address of document [Accessed: day Month year].

Example:

Lane, C. et al. 2003. *The future of professionalized work: UK and Germany compared* [Online]. London: Anglo-German Foundation for the Study of Industrial Society. Available at: <http://www.agf.org.uk/pubs/pdfs/1232web.pdf> [Accessed: 10 May 2007].

The publisher and place of publication can be thought of as the organization responsible for hosting the site, although can be left out if unavailable.

As well as the complete URL to the page, always give the date at which you accessed it. Web sites appear and disappear so often that it is vital to indicate that the information was accurate at the date given.

Wikipedia: There is usually no discernable author of a wiki entry and so this information can be excluded from the reference if unavailable. Instead, begin your reference with the title of the wiki article, then provide the year the page was last updated followed by the title of the web site.

Example:

A map of our own: Kwun Tong culture and histories. 2009. *Creative commons wiki* [Online]. Available at: http://wiki.creativecommons.org/Case_Studies/A_Map_of_Our_Own:Kwun_Tong_Culture_and_Histories [Accessed: 18 June 2010].

Please note that as it is often difficult to tell who has authored a wiki post, it is essential that you verify the accuracy of the information provided using scholarly sources such as books or journal articles. Check with your lecturer or tutor before referencing sources such as Wikipedia.

YouTube video:

Example:

Libncsu. 2009. *Wikipedia: beneath the surface* [Online]. Available at: <http://www.youtube.com/watch?v=QY8otRh1QPc> [Accessed: 21 June 2010].

74. Personal communication

Example:

Smith, K. 2004. Email to B. Robertson 14 April 2004.

Young, Z. 2007. Letter to S. Nicholas 28 September 2007.

When referencing a message on a discussion board in the virtual learning environment, include the following details:

Author. Year. Title of message. *Title of discussion board*. In: *Name of academic module* [Online] Day Month Year of post. Available at: URL of virtual learning environment [Accessed: Day Month Year].

Example:

Smith, A. 2010. Quality of Wikipedia articles. *Wikipedia debate discussion board*. In: *Study Skills* [Online] 12 June 2010. Available at: <http://cue.cf.ac.uk> [Accessed: 18 June 2010].

When discussion lists are referenced, use the following example:

Little, L. 2002. Two new policy briefs. *ECPOLICY discussion list* [Online] 16 April 2002. Available at: http://www.askeric.org/VirtualListserv_Archives/ECPOLICY/2002/Apr_2002/Msg00003.html [Accessed: 8 November 2003].

For all email references, the title of the message comes from the email subject line.

SUBMISSION OF THE THESIS

75. Before printing the Thesis, make certain that:
 - a. The Table of Contents and Lists of Tables and Figures correctly list the exact headings, titles, and page numbers in the body of the Thesis;
 - b. All text and graphics are highly legible when printed, including coloured illustrations and photographs (figures are clear and with proper colours and fonts that can be distinguished);
 - c. All pages are numbered and in proper sequence, and formatted with the margins, headers, footers, paragraph indentations, etc. as defined in this guide.
76. Print out the copies of the Thesis for submission on a laser or other high-quality printer. The Thesis must be printed two-sided (printed on both sides of the paper) on A4 (210 × 297 mm) format white paper sheets (80g/m²).
77. You must first give a clean copy of the finished Thesis to your supervisor(s). After your supervisor has read and approved the Thesis, it is your responsibility to submit the final copies, signed by you and your supervisor on the first page, to the RTU and VGTU in due time.
78. The Thesis summary in your native language and in English must be submitted together with the Thesis. The summary consists of one page (maximum 250 words), *Times New Roman* style, font style – Regular, font size – 12pt.
79. The Thesis is submitted bound in hard covers, in spiral binding and in electronic (.pdf) version. The number of copies submitted to RTU and VGTU are the following:

RTU	VGTU
<ul style="list-style-type: none"> • 1 copy in hard covers • 2 copies in spiral binding • 1 electronic copy in a CD 	<ul style="list-style-type: none"> • 3 copies in soft covers (spiral binding) • 1 electronic copy in a CD

80. The hard cover contains heading "MASTER THESIS" (all capital letters) in the middle of the cover, and year and place of the Thesis elaboration at the bottom, e.g. RTU 2017.
81. It is recommended that an envelope is attached to the inner back cover of the Thesis submitted to RTU to place a summary in two languages, review, and other Thesis related documentation. The envelope is attached only to the Thesis copy in hard covers.
82. The electronic version of the Thesis contains all the same Thesis' parts as the printed version. The electronic version is burned on a CD and placed in the envelope of the back cover of the printed copy. The cover of the CD is formatted according to the example provided in Appendix 8.
83. **No later than 5 days before the Thesis defense**, student must submit the basic information about the Thesis in the RTU internal system ORTUS by filling an electronic form. When the information has been uploaded, student has to print out a Confirmation generated automatically by the system. The Confirmation has to be signed and added to the Thesis just after the Declaration of authorship.
84. Student must fill in the Thesis abstracts in English and Lithuanian languages in the UIS graduate work subsystem at <https://medeine.vgtu.lt/studentams/login.jsp>. Annotations for completing the form can be found on <https://medeine.vgtu.lt/studentams/login.jsp>. **The abstracts must be entered in the subsystem no later than one week before the Thesis defense.** Printout of Confirmation of the Thesis' submission to the UIS subsystem has to be attached to the Thesis just after the Declaration of authorship.
85. The student is responsible for paying all printing and binding costs.

PLAGIARISM AND ITS DETECTION

Plagiarism is the act of taking another person's writing, conversation, or even idea and passing it off as your own. This includes information from web pages, books, scientific papers, articles, television shows, email messages, interviews, artworks or any other medium. Whenever you paraphrase, summarize, or take words, phrases, or sentences from another person's work, it is necessary to indicate the source of the information *within your work* using a citation. It is not enough to just list the source in a bibliography at the end of your paper. Failing to properly quote, cite or acknowledge someone else's words or ideas with a citation is plagiarism. All of the following are considered plagiarism:

- turning in someone else's work as your own,
- copying words or ideas from someone else without giving credit,
- failing to put a quotation in quotation marks,
- giving incorrect information about the source of a quotation,
- changing words but copying the sentence structure of a source without giving credit,
- copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not.

As for paraphrasing and summarizing – they are very similar. Both involve taking ideas, words or phrases from a source and crafting them into new sentences within your writing. In

addition, summarizing includes condensing the source material into just a few lines. Whether paraphrasing or summarizing, credit is always given to the author.

Plagiarism is considered academic dishonesty, therefore the Institute of Energy Systems and Environment has acquired specific software for detecting plagiarism. All the submitted works are checked with the software. The students, that have submitted the work, are informed about the plagiarism detection results via e-mail or in person. Violation of the scientific ethics and plagiarism is stipulated with all the ensuing consequences in the rules of Riga Technical University and Vilnius Gediminas Technical University, as well as in the student's contract.

PRESENTING THE THESIS IN THE FINAL DEFENSE

A thesis requires an oral defense. The thesis defense may be the most important step in the thesis process. Although it may seem intimidating, the defense provides the opportunity to share the research done in thesis with the defense committee and colleagues. It allows to showcase students' efforts and present findings in a supportive environment.

There are five parts to a thesis defense:

1. slide-show presentation of the thesis,
2. questions by the thesis defense committee (and others present),
3. reviewer's evaluation and questions,
4. supervisor's evaluation, and
5. short video presentation.

Guidelines for presentation slides

The presentation should be prepared by using *Power Point* or *other software* to create slides. The presentation should be 10 minutes long and should contain:

- statement of the problem/topicality,
- aim and objectives of the thesis,
- methodology applied,
- results and findings,
- conclusions and recommendations, and
- list of author's publications and presentations.

Some basic tips on formatting the slides:

- Use text large enough to be readable by the audience (especially text from figures),
- Include only key words or phrases on the slides,
- Include diagrams, pictures, graphs, charts etc. rather than tables where appropriate,
- Ensure all graphics and tables are clear,
- Don't clutter your slides – if necessary have things come up on mouse clicks,
- Use spell check and proof-read.

Preparing for presentation

To ensure everything works properly use these tips:

- Practice your presentation before the defense,
- Work on pronunciation, if required,
- Time your presentation to ensure it will fit within the allotted time,
- Before the presentation, check that everything works properly on the auditorium computer and projector.

Plan to dress professionally for the defense in the same way you would for a job interview or for presenting a paper at a conference.

On average, full defense procedure of one student takes 20 – 30 minutes. Hence, you might want to take some bottle of water with you.

Answering questions

After the completion of your presentation, the defense committee and the audience have the chance to ask any questions and engage in discussion with you about your thesis. Although answering questions seems scary, it gives a student the chance to expand on information he has already presented and demonstrate his understanding of the topic. Keeping in mind that no one knows the research done as well as the student himself, there are a few basic hints that are useful when answering the questions:

- Listen to the entire question no matter how long it takes the committee member or some other student to ask it (take notes if necessary)!
- Pause and think about the question before answering.
- If necessary, shortly rephrase the question.
- Answer the question to the best of your ability. If you do not know the answer, remain calm and say so in a professional way.

In RTU, students receive evaluation and questions from reviewer before the defense. In some cases, it is useful to include answers to the reviewer's questions in the presentation slides (e.g. after the last slide of the main presentation).

APPENDICES



VILNIUS GEDIMINAS TECHNICAL UNIVERSITY
FACULTY OF ENVIRONMENTAL ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND WATER ENGINEERING

Student's Name, Surname ¹

TITLE OF MASTER THESIS (in English) ²
TITLE OF MASTER THESIS (in Lithuanian) ³

Master's degree Thesis

Study programme of Environmental Protection Technology and Management, state code
621H17003
Study field of General Engineering

Vilnius, 20__

VILNIUS GEDIMINAS TECHNICAL UNIVERSITY
FACULTY OF ENVIRONMENTAL ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND WATER
ENGINEERING

APPROVED BY
Head of Department

(Signature)

Raimondas Grubliauskas
(Name, Surname)

(Date)

Student's Name, Surname⁴

TITLE OF MASTER THESIS (in Lithuanian) ⁵

TITLE OF MASTER THESIS (in English) ⁶

Master's degree Thesis

Study programme of Environmental Protection Technology and Management, state code
621H17003
Study field of General Engineering

Supervisor _____
(Title, Name, Surname) (Signature) (Date)

Co-Supervisor _____
(Title, Name, Surname) (Signature) (Date)

Consultant _____⁷
(Title, Name, Surname) (Signature) (Date)

Consultant _____⁸
(Title, Name, Surname) (Signature) (Date)

Vilnius, 20__

(the document of Declaration of Authorship in the Final Degree Project)

VILNIUS GEDIMINAS TECHNICAL UNIVERSITY

(Student's given name, family name, certificate number)
Faculty of Environmental Engineering

(Faculty)
Environmental Protection Technology and Management

(Study programme, academic group no.)

**DECLARATION OF AUTHORSHIP
IN THE FINAL DEGREE PROJECT**

(Date)

I declare that my Final Degree Project entitled

_____ is entirely my own work. The title was confirmed on dd month yyyy⁹ by Faculty Dean's order No.¹⁰. I have clearly signaled the presence of quoted or paraphrased material and referenced all sources.

I have acknowledged appropriately any assistance I have received by the following professionals/advisers:

The academic supervisors of my Final Degree Project are

No contribution of any other person was obtained, nor did I buy my Final Degree Project.

(Signature)

(Given name, family name)

VILNIUS GEDIMINAS TECHNICAL UNIVERSITY
FACULTY OF ENVIRONMENTAL ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND WATER ENGINEERING

Study field of General Engineering
Study programme of Environmental Protection Technology
and Management, state code 621H17003

APPROVED BY
Head of the Department

(Signature)
Raimondas Grubliauskas

(Name, Surname)

(Date)

OBJECTIVES FOR MASTER THESIS

.....No.
Vilnius

For student

.....
(Name, Surname)

Master Thesis title:

.....
.....

Approved on dd month yyyy¹¹ by Dean's decree No.¹²

The Final work has to be completed by dd month, yyyy¹³

THE OBJECTIVES:

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Consultants of the Master Thesis:

.....
(Title, Name, Surname)

Academic Supervisor

.....
(Signature)

.....
(Title, Name, Surname)

Objectives accepted as a guidance for my Master Thesis

.....
(Student's signature)

.....
(Student's Name, Surname)

.....
(Date)

**Riga Technical University
Faculty of Power and Electrical Engineering
Institute of Energy Systems and Environment**

Master Thesis

TITLE

Author (Name Surname), Group _____ **14**

Supervisor (Name Surname, degree¹⁵) _____ **16**

Confirmation

Master Thesis is developed at
the Institute of Energy Systems and Environment (IESE)

Author: Name, Last name

(signature, date)

Scientific supervisor:
Degree, name, last name

(signature, date)

Quality control: Name, Last name

(signature, date)

The thesis is suggested for defense at the IESE Master thesis examination commission:

Director of the EEF IESE:
Dr.habil.sc.ing., professor D. Blumberga

(signature, date)

Master thesis is defended at the IESE Master thesis examination commission session on
June___, 2019 and evaluated with mark _____ .

Secretary of the Master Thesis
defense commission

(signature, date)

Declaration of authorship

I, the undersigning, hereby declare that the Master's Thesis entitled

.....¹⁷
is, to the best of my knowledge and belief, original and the result of my own investigations, except as acknowledged, and has not been submitted, either in part or whole, for a degree at this or any other University.

Formulations and ideas taken from other sources are cited as such. This work has not been published.

Name, Last name¹⁸

Date: dd.mm.yyyy.

CD cover (the envelope-shaped sample) for submission of the Thesis' electronic version

<p style="text-align: center;">UNIVERSITY</p> <p style="text-align: center;">FACULTY</p> <p style="text-align: center;">DEPARTMENT OR INSTITUTE</p> <p style="text-align: center;"><i>Student name, surname</i></p> <p style="text-align: center;">TITLE OF THE MASTER'S THESIS</p> <p style="text-align: center;">Master Thesis</p> <p style="text-align: center;">Academic supervisor _____</p> <p style="text-align: center;">City, yyyy</p> <p style="text-align: center;">Reg. No. _____</p>

Endnotes:

-
- ¹ Times New Roman, 14 p.
 - ² Times New Roman, 14 p., capital letters, bold
 - ³ Times New Roman, 14 p., capital letters, bold
 - ⁴ Times New Roman, 14 p.
 - ⁵ Times New Roman, 14 p., capital letters, bold
 - ⁶ Times New Roman, 14 p., capital letters, bold
 - ⁷ If necessary
 - ⁸ If necessary
 - ⁹ Change accordingly
 - ¹⁰ Change accordingly
 - ¹¹ Change accordingly
 - ¹² Change accordingly
 - ¹³ Change accordingly
 - ¹⁴ Place for signature
 - ¹⁵ E.g. Dr.sc.ing.
 - ¹⁶ Place for signature
 - ¹⁷ Title of the Thesis
 - ¹⁸ Place for signature