



Riga Technical University

Institute of Energy Systems and Environment

and

Vilnius Gediminas Technical University

Department of Environmental Protection and Water Engineering

Thesis formatting guidelines  
for program  
**“Environmental  
Engineering”**

## 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 defence and graduation of the program. Therefore, 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 representatives of RTU and 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 defence 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).

The general requirements for final theses (bachelor's and master's theses), as well as the procedure for development and defence of final theses at Riga Technical University are regulated by the " Regulation on Final Examinations at RTU".

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## 1. PURPOSE AND INTENDED LEARNING OUTCOMES OF A THESIS

1.1. The 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 science, and it must be written under the guidance of a supervisor. As the final element in the degree, the Thesis gives the student an opportunity to demonstrate expertise in the chosen research area.

1.1.1. The final work of the RTU academic master's study programme "Environmental Engineering"<sup>1</sup> is a master's thesis. The requirements for a Master thesis developed in RTU is as follows:

- The Master's thesis is an independently developed thesis. The Master's thesis is a consolidation of the knowledge and skills acquired in the study programme, carrying out in-depth research in a topic of environmental engineering (corresponding to the topic of the Master's thesis).
- The practical part requires scientific research - laboratory or mathematical experiment, model and analysis of the results (an example of the structure of a master thesis is given in section 2.4 of the guidelines).

1.2. 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 Bachelor and 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 Bachelor and Master of Science.

1.3. Specific learning outcomes for a 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 identify, formulate and deal with complex issues, critically, independently, and creatively,
- The capability to plan and use adequate methods to conduct qualified tasks in given frameworks and to evaluate this work,
- The capability to create, analyse and critically evaluate different technical/modelling solutions,
- The capability to integrate knowledge critically and systematically,
- 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 to take into consideration all relevant dimensions of sustainable development,
- A consciousness of the ethical aspects of research and development work.

### Procedure of a Master thesis topic selection at RTU

1.4. The selection of the Master thesis topic is held during the 1st year of the Master's study programme.

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<sup>1</sup> According to RTU study field "Environmental Protection" Self-evaluation report, December 2019 and RTU IESE Protocol No 08/01/2020 of 8 January 2020, "On requirements for final theses (bachelor and master) for the newly established study programme "Environmental Engineering".

1.5. The number of proposed Master thesis topics exceeds the number of students. The list of Master thesis topics is published in the form of an electronic document and during one week students shall apply in this document, indicating 1-3 priorities for Master Thesis topics. When selecting a topic, the student has access to the following information about the topic:

- Thesis topic,
- Scientific supervisor,
- Outline of the topic (expected activities),
- The project within which the research is being carried out (if applicable).

After the deadline, a joint meeting with the students is organised during which the topics are assigned.

1.6. If a student wishes to develop a thesis on his/her own topic, the student must address an application to the RTU IESE Methodological Committee<sup>2</sup>, justifying:

- the topicality of the Master thesis topic;
- the relevance of the topic to the objectives and level of the study programme;
- the reason why the topic is chosen.

The student's application shall be examined at the RTU IESE meeting to ensure the relevance of the topic to the objectives and level of the study programme. After the meeting, the student shall receive a reply on the decision.

### **Monitoring of Master thesis development process at RTU**

1.7. The progress of the Master's thesis development is monitored at two levels:

- regular meetings with the supervisor/supervisors;
- regular progress meetings:
  - the first progress meeting takes place no later than 2 months after the selection of the final thesis topic. At this progress review, in the presence of the thesis supervisor, the student must defend the thesis topic, i.e. present his/her understanding of the relevance of the topic, the aim of the thesis, the objectives, the planned results and the tools that will be used to achieve the planned results.
  - In other months - by individual meetings with a representative of the RTU IESE Master's Thesis Quality Supervision Committee according to a pre-announced schedule. During the meeting, the student is required to demonstrate his/her work (which is approved by the supervisor with a signed certificate - see Annex 1 of the present Guidelines) and has the opportunity to ask any unclear questions about the final thesis to the representative of the committee. The student uploads the Supervisor/s signed document in the course "Bachelor thesis" or "Master thesis" in ORTUS<sup>3</sup>.

1.8. The development and quality assurance of the final thesis is closely linked to the compulsory course "Interdisciplinary and Interdisciplinary Research Methods" in the Master's degree programme.

1.9. The development of Master Thesis is regulated by the RTU IESE Methodological Commission. The following tasks of the RTU IESE Methodological Committee are applicable to the development of final theses:

- to initiate the development and annual updating of methodological guidelines (course content, coursework, laboratory work, presentations, final theses (bachelor, master and doctoral theses), etc.);

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<sup>2</sup> According to the RTU IESE regulations on the establishment of the RTU IESE Methodological Commission (Minutes No. 17/10/2019).

<sup>3</sup> Students are informed about these courses at the time of choosing the topics for their Bachelor's and Master's theses.

- ensure quality control (presentation, plagiarism check, etc.) of final theses (bachelor, master, doctorate).

The RTU IESE Methodological Committee consists of at least 3 persons - the study programme director, the registrar and a teaching staff member (associate professor or professor).

### Final mark algorithm

1.10. Final mark for the thesis is being generated through algorithm of several points that a student gets during his/her study. The algorithm is as follows:

| RTU  | VG TU  |
|--|--|
| $V = 0,6 \cdot avg \sum V_i + 0,25 \cdot V_r + 0,15 \cdot V_s$ <p>Where<br/> V- mark for the final work, points.<br/> V<sub>i</sub> - individual evaluation of the thesis by committee members, points.<br/> V<sub>r</sub> - reviewer's evaluation of the thesis, points.<br/> V<sub>s</sub> - process during the semester, points.</p> <p>In the case of the RTU study programme, A <u>Master student may qualify for a grade of "10"</u> if a scientific publication on the topic of the Master's thesis has been submitted for publication (accompanied by a certificate from the editorial board of the journal) or a research project application (accompanied by a submission certificate) has been submitted on the topic of the Master's thesis.</p> | <p>The final master thesis score is equal to the arithmetic mean of all panel members' ratings. Each member of the commission evaluates master thesis individually based on the reviewer's conclusion on BD and the supervisor's feedback.</p> |

**!** Student must hand over his/her work to the quality control regularly during the semesterS.

## 2. GENERAL PROVISIONS

2.1. The layout of the Thesis must comply with the general formatting regulations set for scientific manuscripts and project documentation.

2.2. The Thesis must consist of approximately 80 pages for Master's Thesis (excluding appendices and list of references). In addition, the total size of the Thesis must be chosen to completely cover the specific topic and reach the aim of the Thesis.

2.3. 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 %

2.4. Requirements for the arrangement of the Thesis slightly differ for submission in RTU and VGTU:

| RTU  | VGTU  |
|--|---|
| 1. Title page<br>2. Signature Page<br>3. Declaration of authorship<br>4. Supervisor's task (completed by the scientific supervisor)<br>5. Annotation in two languages (English, Latvian)   | 1. Title page<br>2. Signature Page<br>3. Declaration of authorship<br>4. Objectives for Master's Thesis<br>5. Annotation in two languages (English, Lithuanian) |
| 6. Table of contents<br>7. List of figures<br>8. List of tables<br>9. Abbreviations<br>10. Introduction<br>11. Literature review <sup>4</sup><br>12. Methodology (additional paragraph <i>Environmental Impact Assessment</i> )<br>13. Results and discussion<br>14. Conclusion and recommendations<br>15. References<br>16. List of author's publications <sup>5</sup><br>17. List of author's presentations <sup>6</sup><br>18. Appendices |   |

<sup>4</sup> 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.

<sup>5</sup> Copies of the publications should be provided in the Appendices section

<sup>6</sup> Certificates of the attended conferences, seminars and other events should be provided in the Appendices section

**! Chapter numbering begins with "Literature Analysis".**

2.5. The author, supervisor and title of the work MUST NOT be repeated in the annotations.

2.6. The Introduction should be subdivided into following sections: Problem, Actuality of the study, Aim of the study, Objectives, Object, Novelty, Practical significance, Hypothesis.

2.7. Conclusions should be provided after each main chapter, where the main ideas, results and conclusions are summarized. They should be written in points, in the form of theses.

2.8. 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 thesis. Additionally, here is included compulsory paragraph Environmental Impact Assessment, where is analysed both Latvian and Lithuanian case (2-3 p.)



### 3. FORMATTING PROVISIONS

#### 3.1. Body Text

3.1.1. The text should be written using:

- *Times New Roman* style,
- font style – Regular,
- single space between the lines,
- font size – 12 pt,
- the alignment of the text – Justified.

3.1.2. The following margins are imposed:

- right and left side – 2,5 cm;
- top – 2 cm;
- bottom – 3 cm;
- header and footer – 1,3 cm. Header and footer are left blank.

3.1.3. A new paragraph is indicated by indenting the first line with 1 cm. No spaces between the paragraphs are required.

3.1.4. All pages shall be numbered in Arabic numerals, at the bottom, middle of the page. 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 literature review), but they are considered in the total number of pages. Thus, page numbers are placed on pages starting with the Literature review section.

**! Reference notes may NOT 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.**

#### 3.2. Headings

3.2.1. 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 pt and from the following text by 6 pt.

3.2.2. Chapter titles are written in:

- capital letters (*CAPS*),
- *Times New Roman* style,
- font style – Bold,
- font size 14 pt.

3.2.3. Sub-chapter headings are written with the first capital letter only following with small letters.

They are written:

- *Times New Roman* style,
- font style – Bold,
- font size – 13 pt.

Example. Formatting headings

**1. TITLE (1<sup>st</sup> LEVEL)**

**1.1. Sub-title (2<sup>nd</sup> level)**

1.1.1. Sub-title (3<sup>rd</sup> level)

Sub-title (4<sup>th</sup> level)

3.2.4. The third-level sub-heading doesn't need to use the "Bold" font style.

3.2.5. The fourth-level subheading has the same design style as the third-level sub-heading, except that it doesn't require numbering.

3.2.6. Titles and headings are placed in the center of the page with no indentation from the left side.

**! Syllabification, letter underlining, and full stops are not applied in the titles and headings.**

3.2.7. 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 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.

### **3.3. Tables and figures**

3.3.1. 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.

3.3.2. 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.

3.3.3. Figures should be large enough to be read, tables, if they are larger than half a page, should be divided into several small ones.

3.3.4. There should be at least 2 sentences of text between table and table, figure and figure, table, and figure. They must not be inserted one after the other.

**! Figures and tables must be in the language in which the rest of the paper is written.**

3.3.5. Figure captions must be placed below the figures and not in “text boxes” linked to the figures. Table titles must be placed above the tables.

3.3.6. 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 exist.

3.3.7. 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.

**Example.** The first figure in the third chapter formatting.

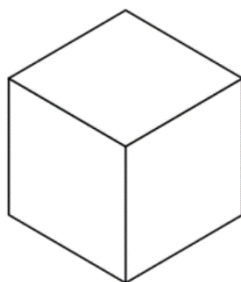


Fig.1.3. The title of the figure

3.3.8. 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.

3.3.9. The style used for figure captions is:

- *Times New Roman* style, font style – Regular,
- font size – 12 pt.

3.3.10. The space before and after the figure, its caption and text is 12 pt.

3.3.11. 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 letter, i.e. 10pt.

3.3.12. 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.

**Example**

...the process is illustrated in the scheme provided in Fig.1.3.

Figure 1.3 shows...”, or “... (see Figs.1.3 and 2.4).

3.3.13. 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 labelled with words rather than symbols. As an example, an axe should be labelled as the quantity “Pressure” not just “p”. Units should be put in parentheses.

3.3.14. If a figure has two (or more) parts, authors should include the labels “(a)”, “(b)”... as part of the figure.

3.3.15. If scanned figures are provided, they must 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 must be properly cited.

3.3.16. The tables provided in the Thesis should be numbered and they should have captions. The tables are placed centered with no indentations.

3.3.17. 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. 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 12 pt and 6 pt, respectively.

3.3.18. 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 9 pt). Tables should have single horizontal lines ( $\frac{1}{2}$  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.

3.3.19. 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.

**Example.** Table formatting (spacing, letter size, etc.)

Table 3.1. Title of the Table

| Month | $\rho_{cs}$ , % | $\rho_{ps}$ , % | $\rho_{os}$ , % |
|-------|-----------------|-----------------|-----------------|
| 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           |

3.3.20. A table should have one extra line spacing after it, followed by other text or objects.

3.3.21. 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.:

**Example**

...as it can be concluded from the data provided in Table 3.1., ...

Table 3.1 shows data from....", or "... (see Table 3.1).

3.3.22. Only the table name, the first row of the table MUST NOT remain separate from the rest of the table content on the same page, they must be moved to a new page. If there are, for example, 3 rows on one page, then the table should be divided on a new page.

**Example.** Redistributing the table to a new page

Table 3.1. Title of the Table

| Month | $\rho_{cs}$ , % | $\rho_{ps}$ , % | $\rho_{os}$ , % |
|-------|-----------------|-----------------|-----------------|
| 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           |

Table 3.1. continuation

|     |       |       |       |
|-----|-------|-------|-------|
| 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 |

**! Figures and tables should not be larger than half a page. If they are larger, then either they should be divided or put in attachments.**

### 3.4. Equations

3.4.1. 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 must 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.

**Example.** Formatting the first equation in Chapter Two

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

were

$m$  - 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.

3.4.2. 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.

3.4.3. 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.:

**Example**

Equation (2.1.) is used....,

.... (Eq. (2.1)).

3.4.4. A recommended order of closures for parenthesis, brackets and braces, is the following: { [ (....) ] }

3.4.5. 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.

### 3.5. Appendices

3.5.1. 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).

3.5.2. 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.:

**Example**

... the data is provided in the Appendix 1.,

... (see App.1).

3.5.3. 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.

### **3.6. RTU IESE prepared Word fail**

In order to save time and energy devoted to the final thesis formatting, a Word file has been created with already prepared first pages: title page, acknowledgment, etc. The student should use this file in the future to write and format his final thesis.

## 4. CITING AND REFERENCING

1. 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 demonstrate that you understand the importance of professional research work.

2. 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.

There are two steps to acknowledging the used sources:

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

3. Two citing methods may be used – Harvard and ISO 690 (Numerical Reference). In Harvard style you place authors surname and year of the publication at the end of the citation. In ISO 690 instead of the surname and year you shall place [number] of the reference, starting with the [1] and going in the rising order.

### 4.1. Citing your sources in the text using Harvard style

4.1.1. 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.:

#### Example

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

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

---

4.1.2. 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.

4.1.3. 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.

4.1.4. 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).

4.1.5. 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).

4.1.6. 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).

4.1.7. 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:

### Example

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).

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

## 4.2. Directly quoting from your sources

4.2.1. 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:

- Cannot present the information more succinctly or in any other way.
- Need to present a particular portion of an author's text in your work to analyse it.

4.2.2. 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.:

### Example

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).

4.2.3. 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.

### Example

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.

4.2.4. 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)

4.2.5. 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.

## 4.3. Referencing

4.3.1. 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).

4.3.2. Write the list in alphabetical order: put the first author's last name first and then his/her initials. Using the ISO 690 style, the sources used in the references section are arranged in order of use.



4.3.3. Include the names and initials of all authors. Arrange any references with the same author by the year of publication, beginning with the oldest.

4.3.4. 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.

4.3.5. 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.

4.3.6. The references should be written using:

- *Times New Roman* style,
- Font size 12 pt,
- 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.** Reference formatting

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.

---

## 4.4 The general provisions for organizing references

### 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:

**Example**

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.

---

### 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.

---

## 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.

---

## 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.

### Example

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*).

## 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.

---

## 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.

---

## Newspaper article

The format required is like 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.

---

## 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: 27.02.2007.].

---

## 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: 10.05.2007.].

---

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 discernible 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](http://wiki.creativecommons.org/Case_Studies/A_Map_of_Our_Own:Kwun_Tong_Culture_and_Histories) [Accessed: 18.07.2010.].

---

**NB! 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.**

### Example. YouTube video

Libncsu. 2009. *Wikipedia: beneath the surface* [Online]. Available at: <http://www.youtube.com/watch?v=QY8otRh1QPc> [Accessed: 21.07.2010].

---

## Personal communication

### Example

Smith, K. 2004. Email to B. Robertson 14.04. 2004.  
Young, Z. 2007. Letter to S. Nicholas 28.09.2007.

---

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] 12.07.2010. Available at: <http://cue.cf.ac.uk> [Accessed: 18.07. 2010].

**Example.** Providing information for discussion

Little, L. 2002. Two new policy briefs. *ECPOLICY discussion list* [Online] 16.04.2002. Available at: [http://www.askeric.org/VirtualListserv\\_Archives/ECPOLICY/2002/Apr\\_2002/Msg00003.html](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.**

## 4.5. References by Mendeley

*Mendeley* is a free tool that lets you manage your library with the following features:

- Add PDF files to your library.
- Import / export files from other bibliographic management tools such as *EndNote*, *BibTex* and *RIS*.
- Find documents online by document ID (eg DOI) or by name and add them to your library.
- Import one-click links from a web site such as *EBSCO* or *SpringerLink* etc.
- Manage your documents and bibliographic references.
- Add bibliographic references after the selected citation in *MS Word* and *Open Office* standard documents and automatically create a list of bibliographic references (references).
- Share documents on the Mendeley social network.

### Users' registration

To use *Mendeley* you must register at [www.mendeley.com](http://www.mendeley.com). When registering, it is recommended that you use the email provided by RTU to take full advantage of the university in the future. The *Mendeley* tool has several user interfaces:

- *Mendeley Web* – a social network for collaboration and communication with other researchers, sharing documents, building a library for your research team;
- *Mendeley Desktop* – an app that needs to be installed on your computer. The Mendeley Desktop app gives you control over your library and references. Synchronization between the Mendeley Web and the local application is ensured:
- *Mendeley Mobile* – mobile apps with limited functionality, compared to Mendeley Desktop, are more for reading, searching, and less for document processing.

### Creating the library

The *Mendeley* tool enables you to create a source library with and without full text. This tool can be used both as a collection of read books and as a list of unread books. It allows you to easily group sources, supplement source descriptions, automatically insert source descriptions from PDFs and web resources.

The PDF file format is the most common source format, which is why the Mendeley tool provides several options for working with it. You can add PDFs to your library by clicking the Add Files button or by using the *Drag & Drop* function to place the file in the *All-Documents* list (Fig.1.).

*Mendeley will automatically attempt to determine the bibliographic data of the attached PDF document - title, year of publication, pages (Fig.2.).*

If all bibliographic data is complete and correct, you can press the *Details are Correct* button. Alternatively, you can press *Search*, and *Mendeley* will try to find information about this document online and complete it. The user may also fill in the missing information himself if *Mendeley* fails to complete the bibliographic data. It is recommended that you fill in the DOI field if the document is assigned a DOI. With DOI, *Mendeley* can retrieve missing data. It is recommended that you fill in as much bibliographic information as possible, as this will be useful in automatically creating references and a list of references. *Mendeley* provides the ability to import / export documents from other bibliographic reference tools such as *EndNote*, *BibTex* and *RIS*.

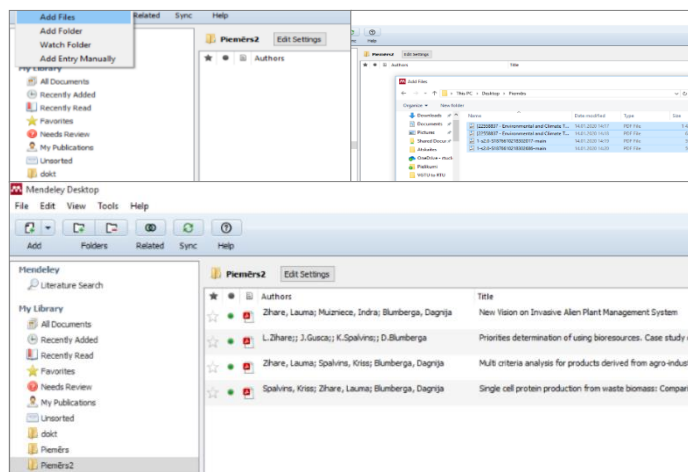


Fig.1. Adding PDF file in Mendeley

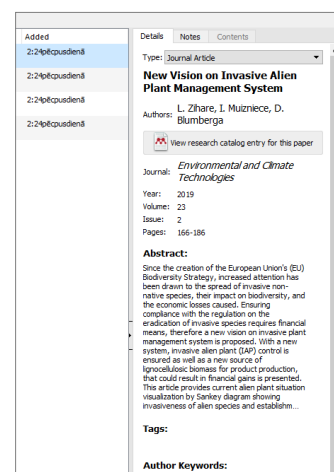


Fig.2. Automatic identification of the bibliographical data in Mendeley

Another way you can add documents to your library is to enter a document ID such as DOI and have *Mendeley* find the document online. You must select *File / Add Entry Manually* and enter a DOI. You need to press a button similar to a magnifying glass and *Mendeley* will find the document. You need to press the Save button and the document will be saved to the *Mendeley* library (Fig.3.).

*File /Add Entry Manually* can be used to enter descriptions of other sources. After calling the tool, you must select the source type and fill in the required fields (Fig.4.).

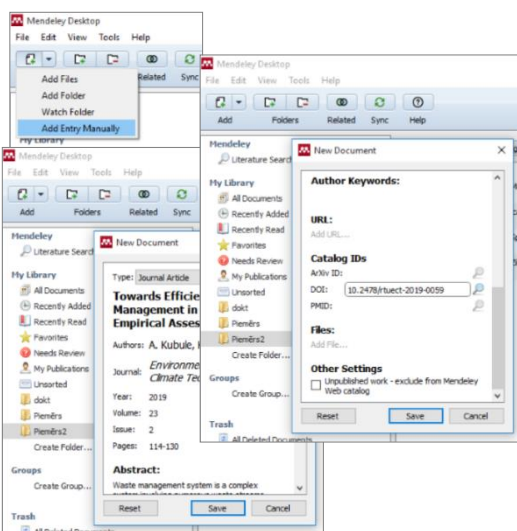


Fig.3. Adding a source by DOI

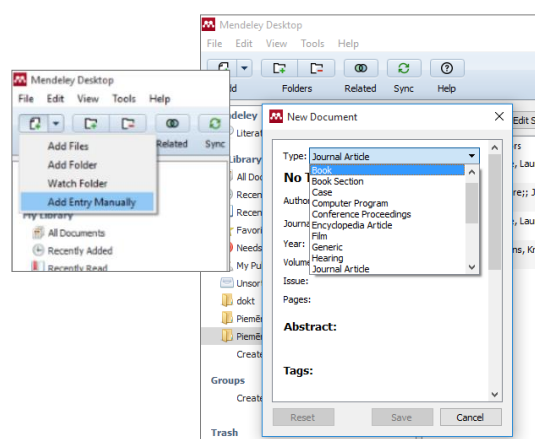


Fig.4. Adding a source by Add Entry Manually

You can also add documents to your library directly from the webpage you have open in your browser. For example, if an IEEE database has an article to use in its thesis, it is possible to import it into your *Mendeley* library with a single click. This feature is called *One-*



Click *Web Importer*. You must first enable it from the *Tools / Install Web Importer* menu (Fig.5.).

This will open a tutorial explaining how *Web Importer* works in different browsers - you should add it to your browser's bookmarks, which are always visible, and call when you need to import from an open web page. For example, the IEEE database has an open publication that needs to be cited in its final thesis. The *Save to Mendeley* button, which you need to press, appears in the browser bookmarks bar.

Clicking *Save to Mendeley* opens a window showing bibliographic data for the publication. If all is correct, click *Save* - and the publication will be automatically added to the *Mendeley* library and referenced in your work. Imported publications can be repaired or opened directly in the *Mendeley* app.

*Mendeley* provides the ability to automatically replenish your *Mendeley* library even when a document is stored in a specific folder that the user wants to add to his or her library (Fig.6.).

For example, if a user searches for keywords in a RTU subscribed database and saves the found documents as PDFs in a folder on his computer for later reading, *Mendeley* can set the function to automatically add all PDFs stored in that folder to the *Mendeley* library so that you can refer to them later and quote them. This feature is called *Watched Folders*. It can be accessed from *Tools / Options / Watched Folders*, and it should be noted in which folders the PDF documents saved should be added to the *Mendeley* library. *Mendeley* provides the ability to synchronize the *Mendeley Desktop* with the *Mendeley Web*, for example, if a user wants to access his or her library online from anywhere by authentication to the *Mendeley Web* site. You must enable the synchronization feature to use *Sync*. This can be done from *All Documents / Edit Settings*. You should check the Synchronize attached files check box. You can choose whether documents in your entire library will be synchronized or just documents in a specific folder. You need to keep track of your GB volume so that it does not exceed the amount provided free of charge.

## Document management

The *Mendeley* tool provides extensive document management capabilities. You can mark documents as read or unread. When documents are added to the *Mendeley* library, they are marked as unread, so the user can keep track of what has been added and what needs to be read. When a document opens in the *Mendeley PDF Viewer* tab, the document is marked as read (Fig.7.).

You can open the document in *Mendeley PDF Viewer* by double-clicking it. *Mendeley PDF Viewer* has a visible toolbar that lets you add notes to text, highlight text, and more. etc. The PDF provides the ability to search by entering key words. *Mendeley* provides the ability to organize library documents in various ways in the *File / Organizer Tools / Options / File Organizer*. It is possible to copy all library documents into a specific folder and create a folder

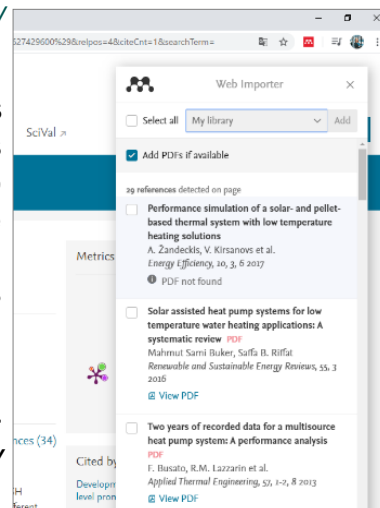


Fig.5. Saving bibliographic data from the browser

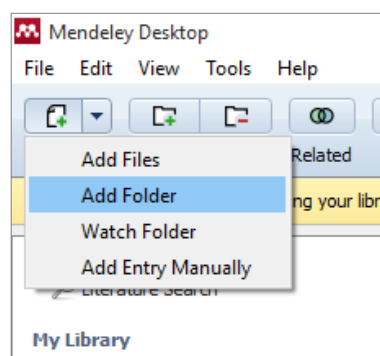


Fig.6. Adding a reference from a folder

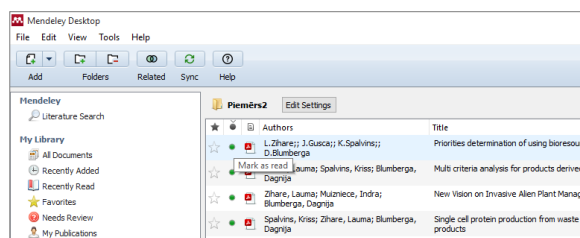


Fig.7. Document's status in the *Mendeley*

structure by years, authors, journals, as well as rename each file attached to the library according to the chosen principle, for example by author, year, and title.

*Mendeley* provides the ability to clean the library of duplicates by selecting *Tools / Check for Duplicates*. It is possible to merge duplicates by pressing the *Confirm Merge* button as long as the documents do not conflict with the bibliographic data.

### Citing documents and list generating

Once a user has created their own library, *Mendeley* provides the ability to add references to *Mendeley* library documents in *MS Word* and *Open Office* word processors and create custom citations in accordance with international standards. A list of references with citations used is generated automatically based on the style you choose, significantly reducing the administrative burden for the researcher / student in finalizing the research or thesis (Fig.8.).

To use this feature, you need to enable the MS Word or *Open Office Mendeley Plug-In*. This can be done from the *Tools / Install MS Word Plug In* menu (Fig.9)

When the plugin is enabled, a new *Mendeley Cite-O-Matic* group will appear on the *References* tab of *MS Word*. First, in this section, you need to select a citation style in the *Style* field to be used for citations and the list of citations. If the desired style is not immediately visible, you can press *More Styles* and find the desired style.

The style of the *American Psychological Association 6th Edition (APA)* is the closest to the terms of this statute. Pressing the *Insert Citation* button opens the *Mendeley* window where you can find the document to be quoted. Quotes can be searched for by any keyword: author, titles, or part thereof, year, magazine, etc. c. Among the found documents, select the correct one, press the *OK button* - and the reference will appear in the text according to the selected standard (Fig.10.).

After inserting all quotes, you can create a list of sources. The list will only be created from sources whose citations have been used in the work. It will be created based on the previously selected referencing style. To insert a list, you need to click *Insert Bibliography*. The inserted field will automatically update after inserting new citations in the document.

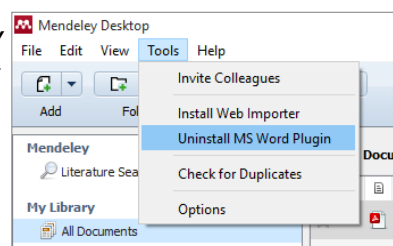


Fig.8. Adding and activating MS Word

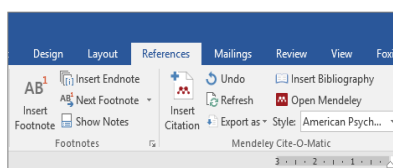


Fig.9. Mendeley Cite-O-Matic group on the References tab

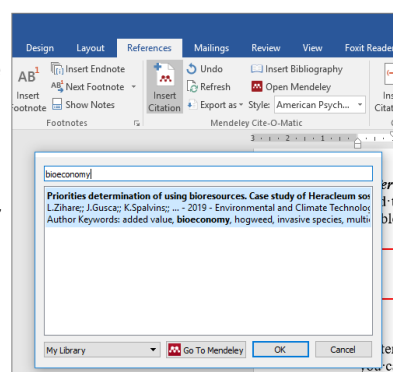


Fig.10. Source Search list

## 4.6. References by MS Word

Starting with 2007-version, *Microsoft Office Word* can automatically create a list of references and sources and make references. When you create a new source, all the source information is stored on your computer so that you can find and reuse any created source in other studies.



## New citation and source adding

Adding a new citation to a document also creates a new source that will appear in the list of references and sources used.

1. In the **References** tab, in the **Quotations & Bibliography** group, click the arrow next to **Style**. Click on the style you want to use for the quote and source. For example, citations and sources in social science papers typically use the *MLA* or *APA* style (Fig.11.).

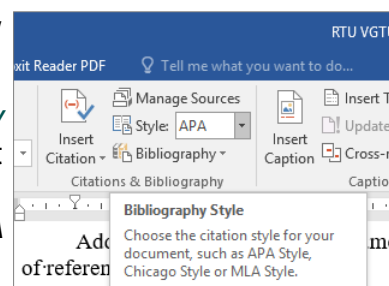


Fig.11. Creating style

2. Click at the end of the sentence or phrase you want to quote. On the **References** tab, in the **Quotations & Bibliography** group, click **Insert Citation**. As a result, the text will look like this: (France, Vendele, 2016). In all references where possible, the page number used must be entered manually.

## Adding new source

To add information about a new source, click **Add New Source** (Fig.12.).

Click on the arrow next to **Type of Source** to begin filling in the source information. For example, the source may be a book, report, or website. Complete the source bibliographic list information. (Fig.13.).

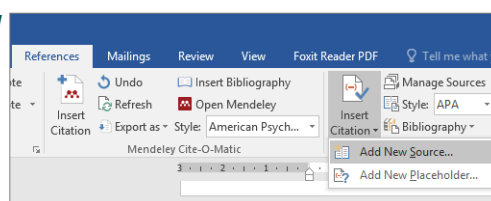


Fig.12. Adding new source

To add more source information, select the **Show All Bibliography Fields** check box.

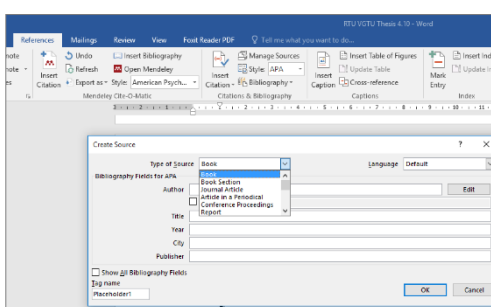


Fig.13. Source information

## Location of the source

The list of reviewed and cited sources can be quite long. Occasionally, using the **Management Source** command, you must search for a source quoted in another document. On the **References** tab, in the **Quotations & Bibliography** group, click **Manage Sources** (Fig.14.).

To find a specific source, do one of the following:

- sort by author, title, citation title, or year in the **Sort by ...** box, and then search for a list of results for the source you want.
- In the **Search** box, type the name or author of the source you are looking for. The list narrows significantly to match the search term.

In the **Source Manager** dialog, you can click the **Browse** button to select another base list from which you can import new sources into the document. For example, you can connect to a shared file, research colleague's computer, server, or website used by a university or research institution.

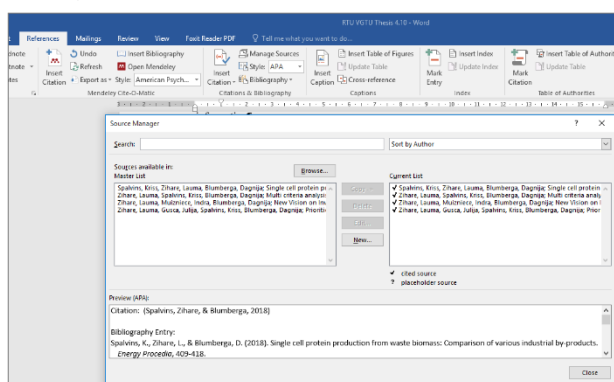


Fig.14. Managing sources

## Manage Sources

You may want to create a citation for a placeholder and then complete the bibliographic source information later. Any changes you make to the source are automatically reflected in

the bibliography if one has already been created. A question mark appears next to placeholder sources in the Source Manager.

On the *References* tab, in the *Quotations & Bibliography* group, click *Manage Sources*. In the *Master List* section, click the placeholder you want to edit. Click *Edit*. Click on the arrow next to *Type of Source* to begin filling in the source information. For example, the source may be a book, report, or website.

To add more source information, select the *Show All Bibliography Fields* check box.

## Creating the list

A list of references and sources can be created at any time when one or more sources are included in the document. If you do not have all the information you need to describe the source, you can use a placeholder quote to complete the citation and complete the source information later. Click where you want the list of literature and sources to be placed. Usually, this list is at the end of the document. On the *References* tab, in the *Citations & Bibliography* group, click *Bibliography* (Fig.15.).

Click a predefined bibliographic list format to insert a bibliographic list into your document.

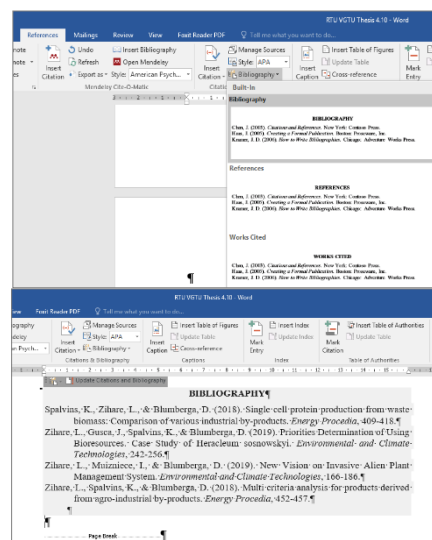


Fig.15. Adding bibliographical list

## 5. PRE-DEFENCE

5.1. One of the traditions of Riga Technical University is the annual RTU Student Scientific and Technical Conference (SSTC), organised in the spring semester. The Environmental Engineering Section is usually held in April. This conference is an annual event where RTU students can demonstrate their knowledge and improve their presentation skills. The conference has two sections - abstract submission and conference participation, which are compulsory.

5.2. Information on thesis submission is communicated by email in the spring semester. Please stay tuned!

5.3. Presenting at the conference is a preliminary defence of the final thesis and is compulsory. More detailed information about the defence will be sent in the spring semester.

5.4. Each person gets 7 minutes to present + 3 minutes for questions and suggestions from the Scientific Committee. It is preferable (but not obligatory) to use RTU slide presentation, the presentation should be coordinated with the supervisor. Remember that you are presenting with the idea that you will use the same presentation (only supplemented with results, conclusions, etc.) in your official final thesis presentation. If all the results are not yet in by the SSTC, don't worry about it, you will add them later, presenting what is/what is expected.

5.5. The presentation should include:

- o a statement of the problem and the issues;
- o the aim and objectives of the work;
- o a description of the methodology used;
- o results and findings;
- o conclusions and recommendations.

5.6. The best presentation of each day will receive a prize, and the author(s) of the best section presentation will be invited to the SSTC solemn Plenary Session.

5.7. Information about the conference and abstract submission is subject to change and will be communicated to students in advance.

## 6. SUBMISSION OF THE THESIS

6.1. To submit a paper, the supervisor must send confirmation to Antra Kalnbalkite that the paper is fully ready for official submission (100% progress).

6.2. The written Bachelor's (BA) or Master's (MA) thesis must be submitted electronically to the person responsible for quality control (who directs the subject of the BA/MA thesis) and must be accurately formatted according to the guidelines (<https://videszinatne.rtu.lv/en/studies/for-students/guidelines/>). Entries that are not designed exactly according to the guidelines will not be accepted. By submitting a correctly designed work, it will be checked for plagiarism.

6.3. Only when the work passes these tests, the person responsible for quality control will inform the student about it and **ONLY THEN** the student will be allowed to collect signatures and submit the work to the *Ortus* system. If the plagiarism system shows any flaws, the work will have to be urgently corrected and sent for a repeat plagiarism check.

**6.4. Before submitting the work to the *Ortus* system, the work must be signed by the author -> then by the quality control side and only after the quality control side -> by the co-leaders! It must be a PDF document signed with eSignature!**

6.5. When submitting a work to the system, it is mandatory to click the box stating that this work contains confidential information, so that it is not freely available to all Ortus users (Fig.16.)!

5.6. A signed work in electronic form (including video and presentation) (in addition to submitting *Ortus*) must be submitted on the day of the defense of the work (must be copied to the folder created by the computer in the RTU auditorium).

**! Without a submitted work, the student is not allowed to defend.**

**! The final thesis is submitted only in electronic format.**

## Esignature procedure

6.1.1. After confirmation from the quality control that plagiarism is not more than 12-15%, and the formatting of the work is flawless, you must get confirmation (e-mail message) from the quality control that the work can be signed.

6.1.2. The first work is signed by its author as a PDF document with a secure electronic signature. After that, the electronic signature of the person responsible for quality control must be obtained, and then all the co-managers (the signature of the main manager and the director need not be obtained).

[illegible]

Fig.16. Submission of work in the *Ortus* system

## 7. PLAGIARISM AND ITS DETECTION

7.1. Plagiarism is the presentation of another person's work or idea as one's own without identifying the true author. This can include information from websites, books, scientific articles, other articles, television shows, emails, interviews, artwork, and more. Whenever you rephrase, summarize, or use any text from another person's work, you must identify the source of the information in the work by reference. It is not enough only with source indication bibliography at the end of work.

7.2. Plagiarism is considered to be:

- Transferring another's work as one's own.
- Copying words or ideas from someone without reference.
- Not quoting quotation marks.
- Misrepresentation of citation source.
- Word change, retaining the source sentence structure without referring to the source.
- Copying so many words or ideas from a source that it does most of the work, whether the source is listed or not.

7.3. Plagiarism is an academic dishonesty. Therefore, software is used to determine it. It will check all submissions. Submitting students are informed of the results of plagiarism by email or in person. The consequences of violation of scientific ethics and plagiarism are stipulated in the regulations of Riga Technical University as well as in the student contract.

## 8. PRESENTING THE THESIS IN THE FINAL DEFENSE

The defense of the thesis takes place orally. It provides an opportunity to share work-based research with the committee and colleagues.

There are five parts to the 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,
5. short video presentation.

**! A video presentation is a creative work in free form on the topic of the work, the process of writing the work. Its length is between 2 and 3 minutes.**

### 8.1. Guidelines for presentation slides

8.1.1. The presentation is prepared using *Power Point* or other slide creation software. The presentation should be 8 minutes long.

8.1.2. Presentation should include:

- Statement of the problem/topicality,
- Aim and objectives of the thesis,
- Methodology applied,
- Results and findings,
- Conclusions and recommendations,
- List of author's publications and presentations.

8.1.3. Here are some basic tips for formatting 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,
- Do not use the automatic slide overlay setting, we recommend that you slide the slides manually,
- Use spell check and proof-read.

### 8.2. Preparing for presentation

- It is advisable to train the presentation material before the defence,
- Improve diction, if necessary,
- Check that the time allowed for the presentation is not exceeded,
- Before the presentation, make sure the audience computer and projector are working properly.

8.2.1. Suitable clothing for the defense is desirable, just as people tend to go to job interviews or speak at conferences.

8.2.2. On average, it takes 20 to 30 minutes to defend one student's work, so it's a good idea to bring a bottle of water with you.

**! If the student wishes, it is allowed to take a printed version of the final thesis with him to the defense. It is recommended to print it one-sided on A4 sheets, black and white. The printed pages should be bound in a spiral.**

### **8.3. Answering questions**

8.3.1. At the end of the presentation, the defense committee and the audience have the opportunity to ask questions and engage in discussions about the work being defended. Answering the questions gives the student the opportunity to expand on the information already provided and to demonstrate their understanding of the topic. Here are some tips to help you answer your questions:

- Listen to the entire question, no matter how long it takes a defense committee member or other student to ask (write down if necessary),
- Think twice before answering,
- If necessary, rephrase the question briefly,
- Answer the question as best you can.

8.3.2. After the defense questions are asked and the reviewer gives his / her assessment.

To: RTU Institute of Energy Systems and Environment  
Methodological Commission

**Scientific Supervisor/s approval on the final thesis progress**

With this I certify that (name and surname of the student), hereinafter referred to as the Student, has developed ...% of the scope of his/her final thesis "(title of the final thesis)" at the moment of signing the document.

I inform that the final thesis is being/is being developed in accordance with the time schedule of the final thesis set by the supervisor.

Scientific supervisor of the thesis: name, surname

Signature or electronic signature