RTU
FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

FORMATTING AND STYLE GUIDELINES FOR GRADUATION PAPERS

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The Guidelines lay down the general requirements concerning the formatting of the graduate papers developed on completion of any RTU FCSIT study program – Bachelor Papers, Master Theses, Diploma Projects, and Qualification Papers. The Guidelines have been developed by the Curriculum Design and Testing Committee of RTU FCSIT on the basis of RTU Regulation on the Formatting of Graduation Papers (2014).

The Formatting and Style Guidelines for Graduation Papers have been approved at the meeting of the Council of RTU Faculty of Computer Science and Information Technology (FCSIT) on 18 October 2021, Minutes No 12000-1.1/10.

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Appendixes

1. General Requirements

Formatting a graduation paper, it is necessary to observe the following general requirements:

- the graduation paper shall be written in the clear English language, observing grammar norms and spelling rules and using the relevant IT terms in English. The use of the English language is permitted for the foreign students or the students studying at the study programs implemented in English;
- the graduation paper is computer-typeset on the standard white A4 format paper page (height – 29.7 cm, width – 21 cm) printed on one side;
- Times New Roman is the main font to be used in drawing up the paper, line spacing – 1.5, color black;
- the minimal volume of the Bachelor Paper is 50 pages. The recommended volume of the Bachelor Paper shall not to exceed 80 pages. The minimal volume of the Master Thesis is 70 pages. The recommended volume of the Master Thesis shall not to exceed 100 pages. It is important to take into account that all pages are included in the overall page count, except for the list of references and appendixes to the graduation paper;
- pages shall be numbered using Arabic numerals centered in the footer (font – Times New Roman, size 12). The dashes before and after the page number are not recommended. The pages are numbered starting with the title page; however, page number on the title page is not written;
- the following page settings shall be used: left and right margins – 3.18 cm, top and bottom margins – 2.54 cm;
- the pages shall be oriented vertically, however, if necessary (large figures or tables), the page can also be oriented horizontally;
- the paper shall be submitted for viva voce examination in both computer-typeset paper format and in the electronic form, or only in the electronic form if the paper is signed with the secure electronic signature. The computer-typeset paper version of the paper shall be submitted hardbound, a Work Performance and Assessment Sheet shall be signed. The front cover of the paper shall be formatted in accordance with the sample given in Appendix 1. It is recommended to attach an envelope to the inner side of the back cover of the paper for placing the references, reviews or other paper-related documents.

2. Sections of the Paper

The compulsory constituent parts of the graduation paper and their sequence are given in Table 2.1.

Table 2.1

Sections of the Graduation Paper

No	Part	Explanation
	Title page	The title page of the graduation paper shall be formatted in accordance with the sample given in Appendix 2.
	Work Performance and Assessment Sheet	This page shall be formatted in accordance with the sample given in Appendix 3.
	Abstract in English	The Abstract shall contain three compulsory elements: 1. 3–5 key words that characterize the field of research. 2. A brief description of the graduation paper, including an introduction of the research field, the aim of the paper and the obtained results. After reading this description, the reader shall gain general understanding of the theme of the paper, what issues have been studied/solved and what results have been achieved. The Abstract shall not contain information about the sections of the paper and references to particular information sources. 3. Information on the volume of the paper – number of pages, figures, appendixes, and sources of reference. The volume of the Abstract shall not exceed 1 page.
	Abstract in Latvian	It is the translation of the Abstract into Latvian.
	Table of Contents	It shall reflect the structure of the graduation paper, comprising headings of all three levels and respective page numbers. The headings are included in the Table of Contents starting with the Introduction. The sample for formatting the Table of Contents is given in Appendix 4.
	Introduction	The Introduction shall contain three compulsory elements: 1. Substantiation of the topicality of the theme and/or rationale for research. 2. The aim of the graduation paper and the tasks set to complete the aim. 3. A brief description of the content of the sections and appendixes to the graduation paper. The volume of the Introduction is 1–2 pages.

No	Part	Explanation
	The sections of the body of the paper	The sections of the body of the paper should include the description of the conducted research presented in the literary language, observing conventions of research writing and using the terminology pertaining to the field of information technologies.
	Results and Conclusions	In this concluding part of the paper, the author: • provides a summary of the research conducted in the graduation paper and presents obtained results (in accordance with the set aim and tasks); • reflects personal conclusions and presents the knowledge gained, rather than reiterates widely known, trivial statements found in literature; • specifies the areas for further research (if identified); • provides information on one's own publications, reports at the conferences and/or participation in the research projects related to the theme of the graduation paper. The volume of this section is 1–3 pages.
	List of References	The list of sources referred to in the body of the paper arranged in the alphabetical order.
	Appendix(es) *(not obligatory)*	Appendixes include explanatory information not included in the body of the paper, for example, a full user guide for the developed software; detailed examples; design, modeling and development methodology; description of the tools or environment; full collection of developed diagrams, questionnaires, etc.

3. Division of the Graduation Paper into Sections and Section Headings

The graduation paper may contain the following sections: Level 1 – chapter, Level 2 – sub-chapter, Level 3 – sub-section. It is not recommended to introduce a more detailed hierarchy. Each chapter shall start on a new page. At the same time, sub-chapters and sub-sections shall not be started on a new page, they follow the previous stretch of the text on the same page.

Section headings are formatted as follows:

- headings are centered;
- headings are not syllabified, not underlined, full stop is not added after the heading;
- chapters are numbered with Arabic numerals placed before the heading;
- the number of the chapter is followed by a full stop;
- interrogative and exclamatory sentences may not be used as the headings, it is also recommended to avoid using abbreviations in the headings;
- headings of all sections (except for ABSTRACT and TABLE OF CONTENTS) are included in the Table of Contents;
- the page may not finish with a heading, at least one line of text shall follow the heading on a page.
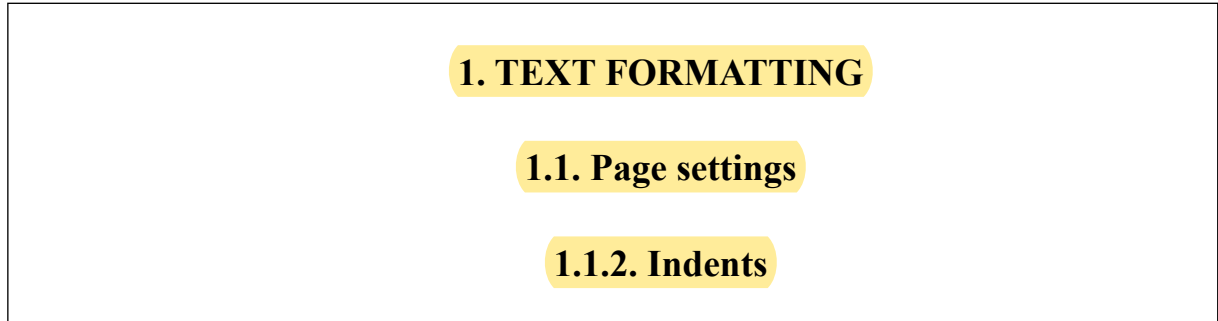
Section headings are formatted as follows:

- Settings for Level 1 headings (chapters):
  - ✓ all letters capitalized;
  - ✓ font size 14;
  - ✓ bold;
  - ✓ 12 pt spacing after the heading;
  - ✓ chapter headings are numbered with Arabic numerals, for example, 1., 2. etc. (except for ABSTRACT, TABLE OF CONTENTS, INTRODUCTION, RESULTS AND CONCLUSIONS, LIST OF REFERENCES);
- Settings for Level 2 headings (sub-chapters):
  - ✓ first letter capitalized;
  - ✓ other letters in the lower case;
  - ✓ font size 14;
  - ✓ bold;
  - ✓ 12 pt spacing before and after the heading;
  - ✓ sub-chapters are numbered within the framework of the respective chapter, for example: the numbers of the sub-chapters of Chapter 1 will be 1.1., 1.2., etc.
- Settings for Level 3 headings (sub-sections):
  - ✓ first letter capitalized;
  - ✓ other letters in the lower case;
  - ✓ font size 12;
  - ✓ bold;
  - ✓ 12 pt spacing before and after the heading;

✓ sub-sections are numbered within the framework of the respective sub-chapter, for example: the numbers of the sub-sections of Sub-chapter 2 of Chapter 2 will be 2.2.1., 2.2.2., etc.

Examples of heading formatting are given in Figure 3.1.

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1. TEXT FORMATTING

1.1. Page settings

1.1.2. Indents

Fig. 3.1. Formatting of section headings

4. Body Text and Lists

The body of the text of the graduation paper is formatted as follows:
- font size – 12;
- the text is justified along both margins;
- indent of the first line of the paragraph – 1.27 cm;
- there is no extra spacing between the paragraphs;
- sub-chapters and sub-sections may not be shorter than 1/3 page;
- in the body of the text, pages shall be maximally filled with text, figures and/or tables;
- there shall be more than one sub-chapter in each chapter and more than one sub-section in a sub-chapter;
- in exceptional cases, when it is necessary to highlight some fragment of the text, *italic* or **bold** may be used.

It is recommended to use numbered and bulleted lists for more explicit structuring of the text of the graduation paper. A list starts with an introductory phrase followed by a colon. Entry text is given in the next line, it is preceded with a list symbol. The following symbols can be used to introduce the entries in a list:
- an Arabic numeral followed by a round bracket (Fig. 4.1 a)) or a full stop (Fig. 4.1 d));
- a lower-case letter followed by a round bracket (Fig. 4.1 b));
- a hyphen (Fig. 4.1 c)).

The text after the list symbol shall start with a lower-case letter, it is separated from the next entry with a comma or semi-colon (in the case of longer entries), full stop is placed at the end of the last entry. If an Arabic numeral followed by a full stop is used to introduce the entries in the list, a full stop is placed after each entry (Fig. 4.1. d)) and the text in the next entry shall start with a capital letter. Multi-level lists are also possible (Fig. 4.1. e)).

Qwerty:	Qwerty:	Qwerty:	Qwerty.	Qwerty:
1) qwerty,	a) qwerty,	- qwerty,	1. Qwerty.	1) qwerty:
2) qwerty,	b) qwerty,	- qwerty,	2. Qwerty.	- qwerty,
3) qwerty,	c) qwerty,	- qwerty,	3. Qwerty.	- qwerty,
4) qwerty.	d) qwerty.	- qwerty.	4. Qwerty.	2) qwerty.
a)	b)	c)	d)	e)

Fig. 4.1. Formatting a list: a) with Arabic numerals and ')', b) with a letter and ')', c) with a hyphen, d) with Arabic numerals '.', e) multi-level list

The indent between the entry in the list and the margin is 1.9 cm. The spacing between the list symbol and the entry text is 0.63 cm. The text in the list entries longer than one line is aligned with the text in the first line. In the multi-layer list, each level below is shifted away from the left margin, respectively, Level 2 is presented with a 2.54 cm indent, Level 3 – with a 3.17 cm indent, etc. It is not allowed to present an introductory phrase to the list on one page and to place the list itself on the next page.

5. Figures

One and the same designation "Figure" is used to describe any illustration included in the paper – photos, drawings, schemes, graphs, diagrams, and the like. The figures are numbered with Arabic numerals within the framework of a chapter, first identifying the number of the chapter followed by a full stop and a sequential number of the figure. Each figure shall be named. The number and name of the figure are written in size 12 bold font one line below the figure. The name of the figure starts with the abbreviation "Fig." followed by the number of the figure, full stop and the text containing the name of the figure. The name of the figure is written in lower-case letters, the first letter is capitalized, no full stop is added at the end of the name of the figure. Both the figure and its name are centered in the middle of the line. The spacing before the name of the figure is 6 pt and after the figure – 12 pt. An example of formatting a figure is given in Figure 5.1, i.e., an example of the first figure included in Chapter 5.
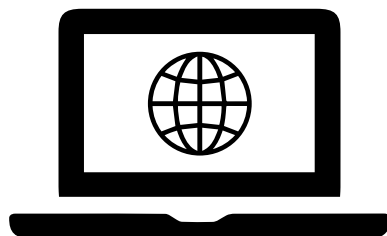

Fig. 5.1. Example of formatting of a figure

Formatting figures, it is necessary to observe the following guidelines:
- one free line (12 pt) shall be used as a spacing between the preceding text and the figure;
- figures narrower than the page width shall be centered;
- the text in the figures shall be readable;
- the text illustrated with a figure shall contain the refence to this figure, using one of the following formats: a) including a reference in the text and giving a full name 'Figure', for example: .... which is clearly illustrated by the scheme in Figure 1.3..., or b) including a reference in brackets and using the abbreviation 'Fig.', for example: As it is illustrated in the diagram (Fig. 1.4)...,
- the reference to the figure shall be provided in the body of the text immediately preceding the figure;
- the figure and its name shall be presented on the same page (it is not allowed to presented a figure on one page and its name – on another page);
- it is recommended to print the paper containing colored figures using a color printer, however, if it is printed in black and white, it is necessary to make sure that the information intended to be communicated in color is not missing (for example, the author should avoid the situation when the author specifies in the text that in the figure the elements of one rank are marked yellow and the elements of another rank

are marked green, but in the printed version, the figure features only the elements in various shades of grey and it is not possible to identify the original color);

• if a figure consists of several parts, as shown in Figure 5.2, the title of the figure should include the description of each part of the figure designated as a), b), etc. Identifiers of the parts of the figure are given at the right bottom corner of each part of the figure;
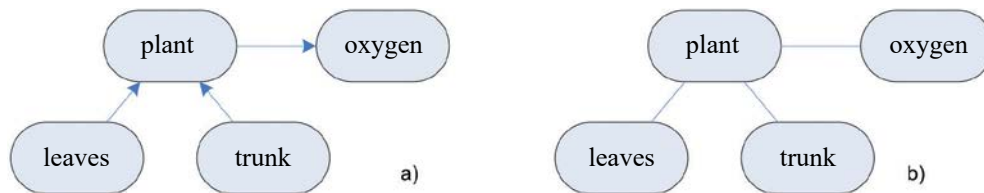
**Fig. 5.2. Types of concept map: a) with directed connections;
b) with undirected connections**

• if it is necessary to add a legend to the figure, it is given under the name of the figure (the legend is written using a smaller font, e.g., 10 pt).

5. Figures

6. Tables

The tables included in the graduation paper are numbered, each table shall be named:

- tables are numbered with Arabic numerals within the framework of the chapter, initially writing the word "Table", then – the number of the chapter followed by a full stop and the sequential number of the table within the chapter, for example, Table 6.1;
- size 12 bold font is used for formatting the name and number of the table;
- the number of the table is written on the right above the name of the table, spacing before the table number and preceding text is 12 pt,
- the name of the table shall be aligned in the center above the table (in the next line following the table number), it is written in lower case letters with an initial letter capitalized, no full stop is added after the name of the table;
- the name of the table shall be centered. The spacing between the name of the table and the table itself is 6 pt,
- the name of the table shall be brief and succinct;
- the name of the table shall not be underlined.

An example of the description of the sequentially first table included in Chapter 6 is presented below.

Table 6.1

Types of Tasks

Task No	Structure of the concept map	Phrases describing relations	Concepts
1	Given	Are inserted in the structure of the concept map	Shall be inserted by the student
2	Not given	Not used	Shall be defined by the student
3	Given	Shall be inserted by the student	Shall be inserted by the student

While formatting the tables, it is necessary to take into consideration that:

- a reference to the table shall be either given in the text preceding the table, for example: as shown by the data in Table 1.3..., or in brackets, for example: summarizing the data (Table 2.1) ...;
- tables narrower than the page width are centered;
- table column names are written in size 12 bold font and centered;
- the content of the table is typeset in size 12 font. Justification or alignment is selected depending on the text, for example, text columns are justified against both margins (Column 3 of Table 6.1) or aligned with the left margin (Column 4 of Table 6.1), the columns containing one value or a short text (Columns 1 and 2 of Table 6.1) are centered;

- if the table occupies more than one page, the names of table columns should be repeated on each page featuring the table;
- one free line is left after the table before the forthcoming text;
- if some explanations of the symbols used in the table are added after the table, they shall be written immediately after the table (in size 10 font), a free line is left after the explanations.

7. Formulas and Code Fragments

Formulas included in the graduation paper shall be incorporated in the text, however, each formula shall be written in a separate line. Formulas shall be formatted as follows:

- symbols used in the formulas shall be explained, explanation is presented immediately after the formula, starting the first line with the word "where". It is written in the left part of the page; no colon added;
- symbols /explanations in the text shall look in exactly the same way as in the formula;
- a 12 pt spacing shall be left before the formula;
- formulas are centered in the middle of the line;
- formulas are numbered with Arabic numerals within the framework of a chapter, the number is added on the left after the formula in the formula line, the number is written in regular (round) brackets;
- if a formula takes more than one line, the number is written in the last formula line;
- the first reference to the formula shall be given in the text preceding the formula;
- referring to any formula in the text, its number shall be written in a similar manner – in the round brackets, for example: … calculated using Formula (7.1),
- if there is only one formula in the graduation paper, it is not numbered.

Sample formula formatting is given below:

$$Q_g = q \times N_g \,, \tag{7.1}$$

where Q_g – volume of martial required per year, kg;

q – material consumption rate, kg/pcs;

N_g – annual production volume, pcs.

The code may be included in the graduation paper only in the textual mode, using Arial Narrow size 11 font (if necessary, font size may be reduced up to size 8). It is **prohibited** to embed it as an image. The source code of the developed software is included in the appendixes to the paper. If the source code takes more than 10 pages, only the most important elements of the source code developed by the student rather than those generated by the development environment are added in the appendixes. Certain fragments of the code may be included in the body of the graduation paper, formatted in one of the following ways:

- short code fragments are incorporated in the text, for example: ... all root classes may be found using m.listHierarchyRootClasses()...;
- longer code fragments are separated from the text used to explain them by semi-colons, code fragments are written below the explanation, making a 1 cm indent from the left and right margin of the page (respectively – 4.18 cm), for example:

In Moodle environment, description of the folder element in XML format contains a unique identifier of the folder and its setting values:

```
<?xml version="1.0" encoding="UTF-8"?>
<activity contextid="752" modulename="folder" moduleid="389" id="14">
    <folder id="14">
```

```
            <name>Mape_1</name>
            <intro><p>šī ir mape svarīgiem dokumentiem</p></intro>
            <introformat>1</introformat>
            <revision>1</revision>
            <timemodified>1591725437</timemodified>
            <display>0</display>
            <showexpanded>1</showexpanded>
        </folder>
    </activity>
```

8. Abbreviations, Terminology and Transliteration

It is allowed to use both traditional (widely used) abbreviations, which should not be additionally explained (Table 8.1), and abbreviations introduced by the author of the graduation paper, which should be deciphered. When the abbreviation introduced by the author of the paper is used in the text for the first time, it is necessary to give the full name of the abbreviated phrase followed by its abbreviation in brackets. Further in the text, only the abbreviated version is used, for example: ... concept maps (CM) are quite frequently used in the learning process…
… there are comparatively few studies dedicated to knowledge assessment with the help of CM.

Table 8.1

Traditional Abbreviations

Abbreviation	Full name
e.g.	for example
et al.	et alia (and other)
etc.	etcetera (and so on)
i.e.	id est (that is)
No	sequential number
p.	page

Developing a graduation paper, it is necessary to use the standardized terms in the field of information technology. It is recommended to use reliable terminographic resources to search for relevant terms. However, it may happen that no standardized term can be found in English. If this is the case, the author of the graduation paper can suggest their own variant of a term, but first it is necessary to coordinate this decision with the scientific adviser of the graduation paper.

9. References

A graduation paper shall not contain any unsubstantiated statements. Normally, substantiation can be found in the works of some other authors and it is necessary to provide the reference to these works in the graduation paper, or some conclusions can be deduced from the information presented in other sources (it should be made clear in the text of the graduation paper). Therefore, developing a graduation paper, for a variety of reasons it is necessary to mention results obtained by other authors, which are reflected in different papers, for example:

- the author quotes a text, which is interpreted immediately afterwards in the body of the graduation paper;
- the author quotes a text in order to substantiate or support one's own opinion;
- a reference to the results obtained by other researchers is provided. Further, it is necessary to explain how these results are used, supplemented or reconsidered in the graduation paper;
- the author conducts a survey of literature, providing references to the considered sources. As a result, a wider overview of the research questions is provided;
- the author analyzes the sources referred to in the body of the paper, as a result, the author may establish regularities, define requirements, or make forecasts;
- etc.

If the data or evidence from some information source is quoted, mentioned, or in any other way directly or indirectly used in the graduation paper, the reference to this source should be provided in the body of the text. It is the duty of the author of the graduation paper to precisely indicate the source of information and its author. A correctly formatted reference informs the reader on the sources used by the author while developing the paper and helps the reader find the material used. Two basic aspects shall be considered while formatting the references – the reference in the text and the entry in the list of references.

References to information sources in the body of the graduation paper are placed immediately after the material being referred to, mentioning the authors and the publication year of the source in brackets, e.g., (Šenfelde 2012) or (Šenfelde 2012: 16) if it is necessary to mention the page number. In addition, the following rules shall be observed:

- if the source has two authors, the reference shall contain the surnames of both authors separated by „&" and a publication year – **(Surname of the first author & Surname of the second author, year)**, for example, (Matsuda & VanLehn, 2003);
- if the source has more than two authors, the reference shall contain the surnames of the first and second author separated by a comma and the abbreviation "et al." at the end – **(Surname of the first author, Surname of the second author et al., year)**, for example, (Jeremič, Devedžič et al., 2004);
- if it is necessary to refer to several sources simultaneously, all these sources shall be given in one set of round brackets, separating the sources with a semi-colon – **(Surname(s), year; Surname(s), year)**, for example, (Matsuda & VanLehn, 2003; Kinchin, 2000);

- if it is necessary to refer to two or more sources published by the same authors in the same year, these sources are additionally notated with a letter, adding it after the publication year (both in the reference and in the list of references), for example, (Jeremiċ & Devedžiċ, 2004a; Jeremiċ & Devedžiċ, 2004b).

Results obtained by other authors can be included in the graduation paper only in two formats – as a quotation or as a paraphrase. A quotation is a precise representation of the author's words (in the original language or as an accurate translation), obligatorily presenting them in the adverted commas, for example: In the paper (Cheikes, 1995), intelligent tutoring systems are defined as "complex, integrated systems that apply principles and methods of artificial intelligence to problems of education and training." In case of paraphrase, the author of the graduation paper retells ideas expressed by some other author in their own words, for example: Intelligent tutoring systems are based on the methods of artificial intelligence used to solve education related problems (Cheikes, 1995).

The text included in the graduation paper that fully replicates or paraphrases the text of some other source without any reference is considered the instance of plagiarism. It is important to remember that **plagiarism is not allowed** in any case, since the graduation paper is supposed to be an original student's research.

References to other information sources are placed also before the list, next to a figure, table, fragment of a code if they are borrowed from literature, as illustrated in the following examples:

a) reference before the list added only in case if:
- the list is taken from the information source with or without alterations (Fig. 9.1),
- the list has been developed by the author of the graduation paper, summarizing information available in other sources (Figs. 9.2 and 9.3),

The project has the following major phases (Kinchin, 2000):
- initiation – permission to start the project has been given, feasibility and priorities of the project have been determined;
- planning – the aim of the project has been defined, the best alternative activities to reach the set aim have been selected, activity plan has been developed;
- execution – coordination of human and other resources to implement the plan; performance of activities to reach the aim.

Fig. 9.1. Reference before the list

Intelligent tutoring systems in the pedagogical module should perform the following main functions (Beck et al., 1996; Halff, 1988; Sedlmeier, 2001):

- study curriculum most suitable for a particular student should be selected, sequence, mode and time aspects of its acquisition should be determined;
- it is necessary to find a balance between the system and student control concerning initiation of the learning activities;
- it is necessary to provide answers to the student queries.

Fig. 9.2. Reference before the list, summarizing results obtained by other authors

Intelligent tutoring systems for a pedagogical knowledge module may appear under different names:

- expert tutor (Warendorf & Tan 1997);
- learning module (Smith, 1998);
- learning object (Virvou & Tsiriga, 2001).

Fig. 9.3. Reference before the list, summarizing results obtained by other authors

b) reference next to the figure, as shown in Figure 9.4 (if the figure is adopted from a different information source with no alterations, the phrase "adopted from" should be added before the reference, but if the author of the graduation paper has made some changes to the figure, the inscription "adapted from" is added),
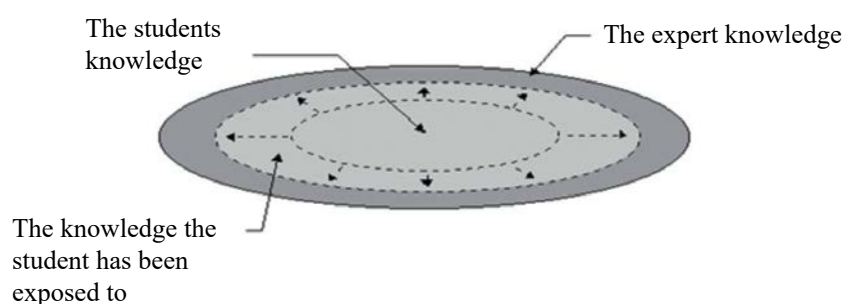
Fig. 9.4. A differential student model (adopted from (Smith, 1998))

c) reference next to the table (if the table is adopted from another source of information with no alterations, the phrase "adopted from" should be added before the reference, but if the author of the graduation paper has made some changes to the table, the inscription "adapted from" is added), as demonstrated by Table 9.1,

d) reference next to the code fragment (if the code fragment is adopted from another source of information with no alterations, the phrase "adopted from" should be added before the reference, but if the author of the graduation paper has made some changes to the code fragment the inscription "adapted from" is added), for example, Simple

reflex or reactive agent program envisions comparison of the current state of the agent with the rules stored in the knowledge base (adopted from (Russell & Norvig, 2003)):

```
function SIMPLE-REFLEX-AGENT (percept) returns action
static: rules, a set of condition-action rules
    state ← INTERPRET-INPUT(percept)
    rule ← RULE-MATCH(state, rules)
    action ← RULE-ACTION[rule]
return action
```

The sources mentioned in the graduation paper should be listed in the section "List of References" placed before appendixes. They should be arranged alphabetically, first presenting the sources written in the Latin script irrespective of the language, followed by the sources in Cyrillic or any other script.

Table 9.1

Properties of Agents (adopted from (Chira, 2003))

Property	Description
Autonomy	The agent may operate autonomously without the intervention of humans or other systems
Reactivity	The agent perceives its environment: it receives inputs from the environment and is able to act upon the environment performing the tasks
Proactivity	The agent is able to take initiative in order to achieve the goals it has been designed for
Cooperation	The agent is able to interact with other agents and/or humans, to achieve the goals it has been designed for

The sources of information are formatted as follows: font – Times New Roman, letter size – 12, the first line with no indent, in other lines there is a 1 cm indent from the left margin. The guidelines for formatting the bibliographic entries for various information sources (articles, books, online resources, etc.) in the List of References are laid down in Appendix 5. The List of References can be also formatted using other internationally recognized referencing styles (for example, APA), if the student uses some automatic referencing tool, for example, Mendeley.

10. Appendixes

Various materials that cannot be integrated in the body of the graduation paper can be added in appendixes. Appendixes are used to present auxiliary information, which:

- is useful in order to understand the content of the graduation paper better, but which is not essential for the overall understanding of the text;
- is voluminous, and its insertion in the text would interrupt its natural flow;
- is mentioned in several sections of the paper, so it is difficult to find a relevant place in the text to present it.

A separate page with inscription APPENDIXES is inserted in the paper before appendixes. The inscription is centered both horizontally and vertically, font size is 22, bold, all letters capitalized. If there is only one appendix to the paper, it is not necessary to add a separate page with the inscription APPENDIXES, the appendix is not numbered either.

Each new appendix should start on a new page, the number of the respective appendix is given in the top right corner, for example: Appendix 1, Appendix 2, etc. The name of the appendix is written below, in the middle of the next line, using size 12 bold font. The name of the appendix is written in the lower-case letters with the first letter capitalized, no full stop is added at the end. The spacing between the name of the appendix and the forthcoming text is 12 pt.

It is necessary to provide a refence to the appendix in the respective section of the paper, for example: the data on … are given in Appendix 1. Appendixes that are not properly referred to in the body of the paper may not be included in the graduation paper.

11. Summary of Formatting Settings

The information about the sizes and fonts used in the graduation paper, as well as formatting and alignment, is summarized in Table 11.1.

Table 11.1

Fonts and Formatting

Element of the graduation paper	Font type and size	Formatting	Alignment	Spacing before (pt)	Spacing after (pt)
Page number	TNR[1], 12	Normal	Centered	0	0
Heading 1	TNR, 14	Bold, all letters capitalized	Centered	0	12
Heading 2	TNR, 14	Bold, first letter capitalized, all other letters in the lower case	Centered	12	12
Heading 3	TNR, 12	Bold, first letter capitalized, all other letters in the lower case	Centered	12	12
Body text	TNR, 12	Normal, spacing between the lines – 1.5, indent in the 1st line in a paragraph – 1.27 cm	Justified against both margins	0	0
Entries in the list	TNR, 12	Indent between the symbol introducing an entry in the list and the margin – 1.9 cm; indent between the symbol and the entry text – 0.63 cm	Justified against both margins; if the text in the list entry is longer than one line, it is aligned along the text of the first line		
Name and number of the figure	TNR, 12	Bold	Centered	6	12

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[1] TNR – Times New Roman

Element of the graduation paper	Font type and size	Formatting	Alignment	Spacing before (pt)	Spacing after (pt)
Code	Arial Narrow, 11	Normal; in case of longer fragments – 1 cm indent from the left and right margins	-	-	-
Number of the table	TNR, 12	Bold	At the right margin	12	0
Name of the table	TNR, 12	Bold	Centered	0	6
Name of the column in the table	TNR, 12	Bold	Centered	0	0
Contents of the table	TNR, 12	Normal	At discretion of the author	0	0
Explanation (legend) after the table	TNR, 10	Normal	Justified	0	12
Formula	TNR, 12	Normal	Centered	12	0
Explanation of the symbols used in the formula	TNR, 12	Normal	Starts with the word "where", placing it in the left side of the page	0	0
References	TNR, 12	Normal	Justified against both margins, the first line presenting a definite source with no indent, other lines – 1 cm indent from the left margin	0	0
Heading "Appendix"	TNR, 22	Bold, all letters capitalized	Centered horizontally and vertically	0	0
Number of the appendix	TNR, 12	Bold	At the right margin	0	0
Headings in the appendixes	TNR, 12	Bold, first letter capitalized, all other letters in the lower case	Centered	0	12

11. Summary of Formatting Settings

Appendixes

Appendix 1. Sample cover page of a graduation paper

Appendix 2. Sample title page of a graduation paper

Appendix 3. Work Performance and Assessment Sheet

Appendix 4. Sample Table of Contents

Appendix 5. Formatting references (LVS ISO 690:2010 *[adapted]*)

RIGA TECHNICAL UNIVERSITY

<TYPE OF THE GRADUATION PAPER >

(choose from the list: Bachelor Paper, Master Thesis,

Diploma Project, Qualification Paper)

RIGA <20….>

RIGA TECHNICAL UNIVERSITY

Faculty of Information Technology and Computer Science

<Name of the organizational unit (institute, department)

responsible for implementation of the study program>

<Name and surname of the student>

<Academic/Professional Bachelor/Master/First/Second Level Study Program>

student ID No <.......>

<TITLE OF THE GRADUATION PAPER/DIPLOMA PROJECT>

< BACHELOR PAPER, MASTER THESIS, DIPLOMA PROJECT, QUALIFICATION PAPER>

Scientific adviser <scientific degree, academic position>

<Name, surname>

RIGA <20….>

RIGA TECHNICAL UNIVERSITY

FACULTY OF INFORMATION TECHNOLOGY AND COMPUTER SCIENCE

<name of the institute>

<name of the organizational unit>

Work Performance and Assessment Sheet of the <Type of the graduation paper from the following list: Bachelor Paper, Master Thesis, Diploma Project, Qualification Paper>

The author of the graduation paper:

Student <Name, surname>

_____
(signature, date)

The graduation paper has been approved for the defense:

Scientific adviser:

<scientific degree, academic position, name, surname>

_____
(signature, date)

1. SCIENTIFIC MONOGRAPH / BOOK / LECTURE COURSE

Surname of the author**,** Initials.**,** Surname of the next author**,** Initials. *Title in the original language (italic)*. Edition. Volume (if more than one). Place**:** Publisher**,** year. Page count. ISBN. e-ISBN. Available from: doi**:**[1]

✓ *If the source has more than four authors, abbreviation et al. is added after the name of the fourth author*

Examples:

Negnevitsky, M. *Artificial Intelligence: A Guide to Intelligent Systems*. 3rd ed. Addison-Wesley, 2011. 394 p. ISBN 978-0201711592.

Barkans, J., Zalostiba, D. *On the Global Climate Change*. Riga: RTU Publishing House, 2010. 82 p. ISBN 9780-9934-10-042-0.

2. PhD THESIS

Surname of the author**,** Name. *Title in the original language (italic)*. PhD Thesis. Place**:** Publisher**,** year. Page count.

Example:

Batrakovs, Aleksejs. *Aging of the Main Gas Lines*. PhD Thesis. Riga: RTU, 2011. 103 p.

3. SUMMARY OF THE PhD THESIS

Surname of the author**,** Name. *Title of the thesis (italic)*. Summary of the PhD Thesis. Place**:** Publisher**,** year. Page count. ISBN. e-ISBN.

Example:

Batrakovs, Aleksejs. *Ageing of Magistral Gas Pipelines*. Summary of PhD Thesis. Riga: RTU Publishing House, 2011. 21 p. ISBN 978-9934-10-256-1.

4. PAPER IN THE BOOK OF ABSTRACTS OF A CONFERENCE / PAPER IN THE CONFERENCE PROCEEDINGS

Surname of the author**,** Initials.**,** Surname of the next author**,** Initials. Title of the paper in the original language. **In:** *Title of the conference and proceedings***,** *Country***,** *City***,** *Date (italic)*. Volume (part). Place**:** Publisher**,** year**,** page numbers. ISBN. e-ISBN. ISSN. e-ISSN. Available from: doi**:**

Example:

Zicans, J., Kalnins, M., Bledzki, A.K., Jablonskis, I., Merijs Meri, R. Tensile Properties of Irradiated Binary Heterogeneous Blends Based on Poly (ethylene terephtalate) and Polyethylene. **In:** *Materials Engineering & BALTTRIB - 2001: Materials of the X-th International Baltic Conference*, *Latvia, Jūrmala, September 27-28, 2001*, pp. 120-121.

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[1] Coloring is used only to highlight the most essential elements; it shall not be used in formatting the list of references.

5. ARTICLE IN THE COLLECTION OF ARTICLES

Surname of the author**,** Initials**.,** Surname of the next author**,** Initials**.** Title of the article in the original language**.** **In:** *Title of the book (italic)***.** Volume**.** Place**:** Publisher**,** year**,** page numbers**.** ISBN**.** e-ISBN**.** ISSN**.** e-ISSN**.** Available from: doi**:**

Example:

Počs, R. Regulations and Requirements for Development of Promotion Theses in Latvia. **In:** *Overcoming the Hindrance in Writing Doctoral Theses: Collection of Scientific Articles*. Riga: RTU Publishing House, 2009, pp. 7-25. ISBN 978-9984-32-113-4.

6. CHAPTER IN THE SCIENTIFIC MONOGRAPH / BOOK

Surname of the author**,** Initials**.,** Surname of the next author**,** Initials**.** Title of the chapter in the original language**.** **In:** Initials**.,** Surname of the author or editor of the book**.** *Title of the book (italic)***.** Edition**.** Volume (if more than one)**.** Place**:** Publisher**,** year**,** page numbers**.** ISBN**.** e-ISBN**.** Available from: doi**:**

Example:

Merkuryev, Yu., Merkuryeva, G., eds. Warehouse Order Picking Process. **In:** Merkuryev, Yu., Merkuryeva, G., eds. *Simulation-Based Case Studies in Logistics: Education and Applied Research.* London: Springer, 2009, pp. 147-165. ISBN 978-1-84882-186-6. e-ISBN 978-1-84882-187-3. Available from: doi: 10.1007/978-1-84882-187-3_9.

7. ARTICLE IN THE JOURNAL

Surname of the author**,** Initials**.,** Surname of the next author**,** Initials**.** Title of the article in the original language**.** *Name of the journal (italic)***.** Year**,** volume number (issue)**,** page numbers**.** ISSN**.** e-ISSN**.** Available from: doi**:**

Example:

Haritonovs, V., Smirnovs, J., Naudžuns, J. Prediction of Rutting Formation in Asphalt Concrete Pavement. *The Baltic Journal of Road and Bridge Engineering*. 2010, vol. 5, no. 1, pp. 38-42. ISSN 1822-427X. e-ISSN 1822-4288. Available from: doi: 10.3846/bjrbe.2010.05.

✓ **Two variants for formatting numbers and pages are possible:**

2010, vol. 5, no. 1, pp. 38-42.

2010, 5(1), 38-42.

8. ARTICLE IN SCIENTIFIC JOURNALS OF RTU

Surname of the author**,** Initials**.,** Surname of the next author**,** Initials**.** Title of the article in the original language**.** *Name of the journal (italic)***.** Year**,** volume number**,** page numbers**.** ISSN**.** e-ISSN**.** Available from: doi**:**

Example:

Buzdin, D., Nikiforova, O. Transformation of UML Class Diagram to Internal Java Domain-Specific Language. *Applied Computer Systems*. 2012, vol. 13, pp. 61-67. ISSN 2255-8683. e-ISSN 2255-8691. Available from: doi: 10.2478/v10312-012-0008-0

9. ONLINE PUBLICATION

Surname of the author, Initials., Surname of the next author, Initials. *Title in the original language (italic)* [online]. Place: Publisher, date [viewed 21 February 2014]. Available from: <URL>

✓ **It is often not possible to determine the place and publisher of the publication, therefore, these elements are <u>not obligatory</u>.**

Example:

Janusevskis, J., Le Riche, R. *Simultaneous Kriging-Based Sampling for Optimization and Uncertainty Propagation* [online]. CCSd, 2010 [viewed 21 February 2014]. Available from: http://hal.archives-ouvertes.fr/hal-00506957

10. PATENTS OF THE REPUBLIC OF LATVIA

PATENT APPLICANT or OWNER. *Title (italic)*. Name [*or* Initial] Surname, Name [or Initial] Surname (inventors). Int. Cl.: [International Classification Index]. Submission date [dd-mm-yyyy]. Patents and Trade Marks [Name of the source]. Patent number with a state code. Publication date [dd-mm-yyyy].

Example:

RIGA TECHNICAL UNIVERSITY. *Low-temperature ceramic having hydraulicity quality*. Laimonis Bīdermanis, Linda Krāģe, Andris Cimmers, Lauma Lindiņa, Ingunda Šperberga, Laimons Timma (inventors). Int. Cl.: C04B33/00. Submission date 01-06-2012. Patents and Trade Marks. LV14562B. 20-01-2013.

11. INTERNATIONAL PATENTS

APPLICANT. *Title (italic)*. Inventor(s). Title. Patent application number. Publication date.

Example:

EASTMAN KODAK CO. *A high speed interpolation filter for television standards conversion*. Inventors: Keith R. Hailey, John J. Storey. European patent application EP0453558 A1. 30-10-1991.

12. TECHNICAL OR PROJECT REPORTS

Responsible body or Author. *Title (italic)* [online]. Place: Publisher, year. Report number. Available from: <URL>

Examples:

Riga Technical University. *Development of efficient clad-pumped fiber optical amplifiers for telecommunication systems (DOPAnT)*. Project [online]. Riga: RTU Institute of Telecommunications, 2019. Project No 1.1.1.1/18/A/068. Available from: https://www.rtu.lv/lv/universitate/projekti/atvert?project_number=4124

Riga Technical University. *Development of efficient clad-pumped fiber optical amplifiers for telecommunication systems (DOPAnT)*. Project 9th reporting stage, 01.06.2021 - 31.08.2021. [online]. Riga: RTU Institute of Telecommunications, 2021. Project No 1.1.1.1/18/A/068. Available from: https://projects.rtu.lv/api/get/publicityFile/828

If report is not available on the Internet:

Mitchell, D., Loader, A. *Investigation of pollutant emissions from crematoria*. Stevenage: Warren Spring Lab., 1993. WSLLR-908 (PA).

13. STANDARDS

Standard code and Title (Italic). Place: Publisher, year.

Example:

ISO/IEC/IEEE 15939:2017. Systems and software engineering - Measurement process. Geneva: International Organization for Standardization, 2017.

14. DATA SET

Surname of the author, Initials., Surname of the second author, Initials. *Title in the original language (italic)* [data set]. Publisher, Publication date. Available from: <URL>

Example:

Dzikevics, M. *Experimental data for latent thermal storage cooling* [data set]. Zenodo, July 29, 2021. Available from: https://doi.org/10.5281/zenodo.5146091