

Appendix 3
of the Resolution No. 01-05-04/133
of the Academic Council of August 14, 2020

**Instructions for Designing the Paper Submitted for Obtaining the
Academic Degree of Master**

1. Designing the Master Thesis

1.1. General Statutes

1. Volume: the volume of the Master thesis without appendices should be, as a rule, not less than 50 and not more than 100 pages, formatted in accordance with the presented instructions. The number includes all bound pages.
2. Language: The Master thesis must be written in the language of the master's program without spelling, stylistic, and grammatical errors.
Resume - in Georgian and foreign languages.
3. Structure: The selection of the structure of the Master thesis is made by the master's student in agreement with the supervisor and in accordance with the topic.
4. Paper: Master thesis should be made on A4 format (297x210mm), 80g/m² density paper. Orientation - vertical. Print only on one page. Photographs and other special purpose drawings and tables can be made on A4 format photographic paper. In the case of using a larger page (for example, for technological diagrams), it is allowed to use any format, only the mentioned pages should not be bound together with the main text.
5. Margin: left side – 38mm, other sides – 25mm.
6. Font: the main part of the text should be written in any standard font (Sylfaen, AcadNusx, Litnux, Literaturuli BJG_2000) size 12. Titles of chapters and sub-chapters should use a larger font size 14. Condensed fonts are not accepted. The text must be printed on a laser printer or with a quality close to it.
7. Page numbering: All pages must be numbered consecutively. It is not allowed to leave a free space or a page. Repetition of pages is also not allowed. The minimum font size for page numbers is 10. The page number should be 1.3 cm from the bottom edge of the page and 2.5 cm from the right edge.
8. Line Spacing: Spacing for body text is 1.5. For small sections (contents, list of tables and figures, summary, footnotes, notes, etc.), space 1 is taken.
9. Titles of Chapters and Subchapters: All chapter and subchapter titles should be included in the table of contents. All chapters should start on a new page and sub-chapters should continue from the same page.

10. Citation of literature: Citation of literature should be given in the main text (usually at the end of the paragraph) in square brackets with Arabic numerals. The font should be the appropriate size for the text. The list of cited literature should be given at the end of the master's thesis (see paragraph 1, 4).

11. Footnotes: Footnotes can be placed at the end of a page or chapter/subchapter. Font size - 10 points. If the footnote is placed at the end of the chapter, then the numbering is produced in Arabic numerals and is consistent throughout the chapter. When placing a footnote at the bottom of a page, the numbering is produced in Arabic numerals, which can start at the beginning of each page. References to footnotes in the main text are produced by quality case symbols (e.g., " * ").

12. Constituent parts of the Master thesis are the following:
(Required are those which are not marked with an asterisk)
 - a. Title page
 - b. Signatures page
 - c. Copyright page
 - d. Dedication page for someone*
 - e. Resume (in two languages)
 - f. Content
 - g. List of tables
 - h. List of drawings
 - i. List of used abbreviations*
 - j. Alphabetical search*
 - k. Acknowledgements page*
 - l. Main text
 - m. Introduction
 - n. Literature review
 - o. Research methods
 - p. Results and their judgment
 - q. Conclusion
 - r. Footnote*
 - s. Bibliography or list of used literature •
 - t. Appendices*

1.2. Pages of the Introductory Part

1. Title page (outer cover): should be of standard form. It must include the title of the Master thesis, the master's name, the name of the master's program, the code (according to the qualification framework), the text "Submitted to obtain the academic degree of master", "Georgian Technical University ", "Tbilisi, 0175, Georgia". It should also include the month and year when the defense of the Master thesis is scheduled. The page number mentioned is 1, but it is not indicated (see Annex 1).
2. The page of signatures should be of standard form. The original of the standard version of the Master thesis must have original signatures. The mentioned page should include the text: "Georgian Technical University ", the name of the faculty, "We, the undersigned, confirm that we have read the Master thesis performed by [surname, name] under the name: [name] and recommend that it be reviewed by the Examination Commission of the Georgian Technical University[faculty name] for obtaining the academic degree of Master", date. It must be certified by the supervisor, the head of the quality assurance service of the faculty (responsible for the compliance of the form) and the reviewer's signature (see Appendix 2).
3. The copyright page should be in a standard format. The original of the standard version of the Master thesis must have the original signature of the author. This page is intended to grant the right of disposal (distribution for non-commercial purposes, referral, etc.) to the library of the Georgian Technical University. The mentioned page should include the text "Georgian Technical University", the year of its submission to the examination commission, the author's surname, name, the title of the thesis, name of the faculty, the academic degree to be obtained, the date of the meeting. It should also include the standard texts "The right to copy and distribute the Master thesis of the above name for non-commercial purposes is granted to the Georgian Technical University in case of request by individuals or institutions for the purpose of familiarization" and "the author retains the rest of the publishing rights and neither the entire thesis nor its individual components may be reprinted or reproduced by any other method without written permission of the author". The author claims that the appropriate permission has been obtained for the copyrighted materials used in the work (except for those small citations that require a specific relationship in citing the literature, as is accepted in the performance of scientific papers) and takes responsibility for all of them" (see Appendix 3).
4. The page dedicated to someone: the text and form of the mentioned page is completed according to the author's wish. It should not exceed 30 words.

5. Resume (mandatory): It should clearly convey the brief content of the work performed and the main results. As a rule, the summary does not contain footnotes, tables, drawings, charts, etc. The volume of the resume should be between 500 and 800 words. The examination commission has the right to present the resume in both printed and electronic form. The interval between lines should be equal to one. The resume must be written in two languages, the language of the Master thesis and English/Georgian.
6. Content (mandatory): Master thesis must contain content (table of contents). Spacing should be 1. Font size – 12 points, spacing between paragraphs should be 6-12 points. Page numbers should be placed in the right margin. It is allowed to fill the space between the title and the page number with symbols ".", "-", "_".
7. List of tables (mandatory): the interval should be 1.5–2. If the paragraph is longer than one line, the spacing is set to 1. The font size should be 12. Page numbers should be placed in the right margin. It is allowed to fill the space between the title and the page number with symbols ".", "-", "_".
8. List of drawings (mandatory): Spacing should be 1. Font size – 12 points. Spacing between paragraphs should be 6-12 paragraphs. Page numbers should be placed in the right margin.
9. It is allowed to fill the space between the title and the page number with symbols ".", "-", "_".
10. List of abbreviations used (if necessary): for abbreviations used in the Master thesis, which are not generally accepted. It is desirable that the author gives their list and explanation, which will make the work easy to understand.
11. Alphabetical search (if necessary): According to the author's wish, it is possible to attach an alphabetical search space.
12. Acknowledgments page (if necessary): the author has the right to express gratitude in the Master thesis to all those who provided some help (contributed in one way or another) during the completion of the Master thesis. In addition, after each named person, the reason for gratitude should be briefly and clearly mentioned (the form of assistance provided by the mentioned person, for example: financial assistance, organization of business trips, assistance with materials necessary for research, consulting, etc.). The text and form of the mentioned page are completed according to the author's wish. Its size should not exceed one page.

1.3. Main Text

The main text should be divided into chapters and sub-chapters, it must contain an introduction, literature review, research methods, results obtained on the basis of scientific/engineering research conducted by the author and their judgment, as well as conclusions:

1. Introduction: The introduction part should describe the research/engineering problem presented in the Master thesis, relevance and practical importance. The volume of the introduction should not exceed 5% of the volume of the main text.
2. Literature Review: The literature review should provide an analysis of the existing literature related to the research/engineering task presented in the Master thesis. The volume of the literature review should not exceed 30% of the volume of the main text. Methods of analysis (if any), assessment of results: The structure of research methods and assessment of results depends on the topic of the Master thesis, and the author has the right to present them in any form he/she wishes. The number of sub-chapters is not limited.
3. Conclusions: The Master thesis must contain concise conclusions.

1.4. List of Used Literature

1. General statutes: the list of used literature should be placed at the end of the Master thesis according to the order indicated in the main text. When citing a literary source, the following style should be followed:

1.1. Article:

Initial, surname. Full title. Full name or abbreviation of the journal. Year, volume (if available), number, beginning and end of pages (pp.). e.g.:

1. Gigadze V. Logistical problems in the transportation of bulk cargoes. Dispatch. 2017, 3, pp. 17-25.
2. Xie W., MacKerell A.D. Development of a polarizable intermolecular potential Function (PIPF) for liquid Amides. Chem Theory Comput. 2001,3, 6, pp. 1878-1889.

1.2. Book:

A) On referring to individual pages:

Initial, surname. Full title. Place of publication: Publication. Year, [volume], beginning and end of pages (pp.). e.g. :

1. Bruice P. Organic Chemistry. New-York: Pearson Education, Inc, 2004, pp 45-123.

B) On referring to the entire book:

Surname initial. Full title. [Volume], place of publication: publication.

Year, total number of pages, p.

1. Kotoria S. Mathematical logic [2], Tbilisi. Awareness. 2015, 227 p.
2. Bruice P. Organic Chemistry. New-York: Pearson Education, Inc, 2004, 896p.

1.3. Patent:

Surname initial. Full title. Place of publication. Patent number. Date of publication. Application Number. Date of submitting the application.

1. Cunningham B.T., Li P Method and instrument for detecting biomolecular interactions, USA Pat. No.7292336. 6.11.2007. Appl.No.: 11/605,798. filed: 28.03.2007.

1.4. Information from the global network:

Name of website/link. Last checked - number, month, year. e.g.:

- a) <http://patft.uspto.gov/netacgi/doc.html>, Last checked on – 5.03.2007.

b) Page Numbering: Pages are numbered consistently with the main text.

c) Spacing: The space between lines is 1. The space between paragraphs is 6-12 points.

d) Font size: font size 12 points.

1.5. Tables, Drawings and Formulas

1. General Statutes: The content, location and formatting of drawings and tables are determined by the specifics of the paper. The use of drawings and tables taken from other literary sources should not violate copyright. Drawings and tables are drawn in black and white, also colored illustrations are allowed to be used.
2. Titles: Titles should be placed directly at the top or bottom of tables and figures. The font size should be 1 point smaller than the font size of the main text. It is allowed to use a dark font. The interval should be equal to 1.
3. Location: Figures and tables with their names can be placed both in the main text and on separate individual pages and as appendices. Drawings, tables and illustrations should be separated from the text by 1.5-2 cm. If necessary, horizontal orientation of the sheet is allowed. The margin and page numbering of horizontal pages should be similar to that of vertical pages.

4. Numbering: The numbering of figures and tables in the main text is done in bold. The numbering of the figures and tables in the appendix starts from the beginning.
5. Formulas: location - in the main text, typed - using MS Word formula writing program ("Equation"); Numbering – piercing, size – similar to the main text.

1.6. Appendix

1. General Provisions: Data tables, drawings, calculations, analytical procedures, diagrams, charts and others can be placed in the appendix.
2. Copyright: When copyrighted materials are used in the Master thesis, the copyright permission letter(s) must be added as a separate page(s) in the appendices.

Appendix 1

Title page form



Georgian Technical University

Name, surname

Title of Master Thesis

Presented for Obtaining the Academic Degree of Master

Master's Program - -----

----- Font---

Georgian Technical University

Tbilisi, 0175, Georgia

Month, 20-- year

Georgian Technical University

----- Faculty

We, the undersigned, confirm that we have recognized the surname, first name

The Master thesis performed by: -----

----- and

we recommend that it be reviewed by the faculty examination committee of the Georgian Technical University ----- for obtaining the Academic Degree of Master

Date: Date, month, 20--- year

Supervisor-----

Reviewer-----

Head of the quality assurance service of the faculty

Georgian Technical University

It was submitted to the examination commission in 20--

Name Surname

Title of Master Thesis

Georgian Technical University

Faculty

Presented for obtaining the Academic Degree of Master

The date of conducting the session „-----“ „-----“, 20-- year

"The Georgian Technical University is granted the right to copy and distribute the Master thesis for the purpose of familiarization with the thesis of the above title, for its non-commercial purposes upon request by individuals or institutions."

"The author retains all remaining publishing rights, and neither the entire work nor its individual components may be reprinted or reproduced by any other method without the written permission of the author. The author claims that the appropriate permission has been obtained for the copyrighted materials used in the work (except for those small citations that require only specific references in the citation of the literature, as is accepted in the performance of scientific papers) and takes responsibility for all of them“.

Author's signature-