

**TALLINN UNIVERSITY OF TECHNOLOGY**

SCHOOL OF ENGINEERING

Department’s title

**THESIS TITLE**

**THESIS TITLE IN ESTONIAN**

BACHELOR THESIS/ MASTER THESIS

|  |  |
| --- | --- |
| Student: | ................................................... |
|  | /name/ |
| Student code: | ................................................... |
| Supervisor: | ................................................... |
|  | /name, position/ |

Tallinn 20…

(*On the reverse side of title page*)

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(*title of the graduation thesis*)

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**TalTech Department`s title**

**THESIS TASK**

**Student**: …………………………………………………………………..(name, student code)

Study programme, ………………………………………………….. (code and title)

main speciality:

Supervisor(s):…………………………………………………………….(position, name, phone)

Consultants: ……………………………………………………………..(name, position)

…………………………………………………………………………………… (company, phone, e-mail)

**Thesis topic**:

(in English)  *The thesis topic should be formulated as short and specific enough to set an research problem statement and scope in a simplest form for a reader*

(in Estonian) ……………….……………………………………………………………………………………….

**Thesis main objectives**:

|  |
| --- |
| 1. |
| 2. |
| 3. |

**Thesis tasks and time schedule:**

|  |  |  |
| --- | --- | --- |
| **No** | **Task description** | **Deadline** |
| 1. |  |  |
| 2. |  |  |
| 3. |  |  |

**Language:** ………… **Deadline for submission of thesis:** “.......”.........20….a

**Student:** …………………….. .......……........ “.......”………….....................20….a

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**Supervisor:** ………………… …………………….. “.......”......................20….a

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**Head of study programme:** …………… ..................... “.......”......................20…..a

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# PREFACE

The length of preface must not exceed of A4-format one page. Preface indicates, by whom (organisation, company, person) was initiated the thesis topic, where the major thesis work was done, who (names, positions) assisted author in data collecting, consulted, etc.

Student may, if wished, express gratitude to them, who assisted, supported or inspired him/her on the way to graduation.

The preface must contain a short summary of the thesis that could, even in case of thesis publishing embargo, be published, for example in TTÜ digital library. The end of preface must provide 4-5 keywords, the last of which’ must be bachelor thesis or master thesis respectively.

### List of abbreviations and symbols

Abbreviations (except the common ones, such as: e.g., i.e., incl., No, €, etc., ...) must be explained where they first appear in the thesis text.

Compilation of the list of abbreviations and symbols is recommended in the cases, when thesis repeatedly uses generally unfamiliar or complex abbreviations or symbols. Explanation of each symbol (NB! also indices) and also the original wording (in parentheses and in original language) for acronyms are given in this list. Short definition could be added to selected abbreviations and symbols in order to improve thesis readability. Abbreviations and symbols must be listed in alphabetical order.

# INTRODUCTION

The aim of thesis introduction is to acquaint reader with the thesis subject area and integrate it with a larger context of society and economics. Thesis problem and objectives must be defined in the introduction. Also the thesis topic choice, together with actuality and importance aspects, is reasoned, thesis tasks are formulated and the short overview of the thesis subject area and object are given. If needed, known alternatives could be introduced and connection with similar works and projects may be indicated. Methods used in thesis, computer software etc. may also be named.

As a general rule, a short overview of thesis chapters and appendices (if they exist) content is also given in the introduction.

The length of introduction should be at least 1 page, but not more than 1/10 of the main body length.

# MAIN BODY

Main body is the most important part of the thesis. It must give the reader an exhaustive understanding of the work done, from the tasks’ specification up to the solutions’ detailed description and reasoning.

Depending on particular subject, the thesis main body must contain:

* comparative analysis of known data, i.e. products, engineering solutions, theories, methods or scientific results, etc., to preferably be summarised in table(s). It must become clear, why none of the previously known solution, method or theory is not applicable or not optimum. Basis for the thesis task’s novel conceptual level solution specification must be formed;
* final specification of thesis refined objectives and initial parameters (detailed on the basis of thesis previous parts) together with conceptual level solution or reasoned hypothesis to thesis problem;
* direct development of thesis object, incl. calculations, programming, design, data processing, etc.;
* risk and safety analysis (if applicable);
* overview of economic aspects and/or calculations with analysis;

Thesis main body must be structured into logically interrelated divisions:

* chapters,
* sections,
* items,
* sub-items.

It must be avoided to reflect any unimportant regarding subject or just “nice to know” (though otherwise interesting) data in the main body of thesis.

As a recommendation all thesis main body chapters should preferably have about the same length.

### Chapter section

*Verdana* font with size 10 pt. must be used. Line spacing should be 1,5 lines and font color must be black.  
**All the parts of thesis, also the chapters of main body and appendices** (NB! but not sections, items, sub-items), must be started on new page and their headline is to be written with font *Verdana* 14 *Bold*, using capital letters.

**Section** headline must be written using font *Verdana 14* *Bold*, but only the first letter is capitalised. Section number consists of the chapter number and sequence number of that section (in this chapter), separated by point. Three blanc lines should be left between the end of previous and the headline of following division (in the case, when both appear on the same page).

### 2.2.1 Item of the chapter section

**Item** headline must be written using font *Verdana* 12 *Bold*, only the first letter is capitalised. Item number consists of the section number and sequence number of that item (in this section), separated by point. Two blanc lines should be left between the end of previous and the headline of following division (in the case, when both appear on the same page). Item is focussed on one particular issue.

**Sub-item** should neither be numbered nor headlined. Sub-item starts as a new paragraph with first sentence or word(s) in bold acting as heading.

In the cases when the section or item headline (without division body) appears at the end of page, it shall be moved to the next one. It is recommended, that the thesis lowest division should not have text more than 1 ... 2 pages.

# SUMMARY

Summary is a synthesis of introduction and most important results and conclusions. The length of summary is usually 1 ... 2 pages. Structure of the summary should follow that of main body divisions. Summary should contain the following:

* overview of thesis process and analysis in the light of initially specified objectives;
* concise summary of thesis results;
* student’s evaluation of thesis results and conclusions.

It is appropriate to mention problems in the summary, solving of which was left out of thesis scope, to be considered in the future.

One should follow a rule, that reading the summary (together with introduction) should be sufficient in order to understand thesis objectives, results and context (thesis main body, however, is intended to explain, how the results were obtained and to argue in detail the decisions made during the work).

Summary must be written both in English and Estonian. A thesis written in a foreign language shall include an Estonian summary, except in case of the graduation theses of degree curricula taught in English.

# LIST OF REFERENCES

|  |
| --- |
| Reproducing other authors’ text, opinions or main ideas as one’s own creations is unethical and illegal. Each and every data, condition, recommendation, little known formula, method, text sentence or part of it, published/created by someone else, must therefore be cited in thesis text and respective sources (book, article/paper, web-page, etc.) must appear in the reference list.  The list of references must contain each and every source, that student has directly used and which were cited in thesis (incl. appendices), including limited edition sources, study reports and previous theses. It is highly recommended, that at least a half of references is not older than 5 years.  In general it is no allowed to cite:   * popular magazines and periodicals, * conspects and other study materials (excl published textbooks), * blogs (usually), * Wikipedia, * comments, etc.   Data taken from authors’ written communication, company in-house documentation or expert interviews must be properly cited, but these references shall not be included to the required number of references.  Sources are to be listed according to chosen citing style. Once selected, the same citing style must be followed consistently. Detailed descriptions of citing principles and references’ formatting are given on the website of TalTech library, see [3], [4] and [5]. Two following siting styles could be used in thesis. |
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| **Author-date citing style** is mostly used in research oriented Theses, when it is important to show chronological origin of data. In this case:   * sources are identified by author’s name and publication year, that are marked in brackets directly after the text, formula, numeric value, figure, etc., to be cited; * in the list of references, the sources are listed in alphabetical order and are not numbered. |

# APPENDICES

Appendices complement the thesis main body. They may contain, in order to keep the main body concise, the following:

* all larger data volumes (tables of initial parameters, drawings of A3 and A4 size, specification, bills of materials, raw experimental data, etc.),
* repeatedly needed calculations of standard nature, computer programmes, their printouts or descriptions,
* text material of lower importance and/or supportive and/or illustrative nature,
* voluminous mathematical deriving’s, etc.

In the case of many appendices, it is allowed to position a page, titled **APPENDICES,** before the first appendix. Each appendix must start on a new page. The word Appendix together with is number and title should be written in upper right corner of each appendix’ first page, e.g.: Appendix 1 Form of title page. When an appendix is structured into divisions, their numbers should begin with letter A, in order to distinguish them from divisions of thesis main body, e.g. A3.2, A5.3.1, etc.

# GRAPHICAL MATERIAL

In the case, that thesis contains graphical materials, such as drawings, schemes, posters etc., that have size A3 or larger, it is allowed to:

* print it out as reduced, assuming that the texts remain readable, and bind them in thesis appendices or
* put together graphical part, place them (in original size and folded) into an envelop attached onto the inside of thesis back cover or into a separate folder, equipped with title sheet. Graphical material shall be folded after the thesis defence (see Appendix 4).

List of graphical materials shall be given in the end of thesis contents.

Formatting of all drawings must comply with valid standards (ISO etc).

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