

GUIDELINES

for preparation and defense of thesis

for bachelor's degree students in "Computing and Computer Science"

2026

A. DEADLINES AND PROCEDURES

At the beginning of each semester, a schedule for thesis defenses is published on the VSU website. Students must submit an application through their student status for admission to thesis defense no later than one month before the defense.

B. THEMATIC AREAS

The specifics of the specialty require students to demonstrate knowledge and practical skills during the thesis defense. This requires students to develop a practical part (most often - an application) and describe their work according to the requirements outlined below.

C. THESIS PREPARATION. REQUIREMENTS

C.1. What should be submitted?

- **Thesis text** - 1 copy, bound with spiral binding (do not bind with hard covers)
- **Thesis summary** - 1 copy (printed copy and file)
- **Thesis text** in PDF and docx format
- **Declaration of originality**
- **Implementation letter or company opinion on the development, commissioning letter** (if applicable)
- **User manual** (attached if necessary)
- **Test account** (attached if necessary)

C.2. What should the thesis include?

C.2.1. Title page (without frames), containing the following information:

Varna Free University "Chernorizets Hrabar", Faculty of "Social, Economic and Computer Sciences", Department of "Computer Science"

Thesis, Thesis topic

Student's name, specialty, faculty number, Academic supervisor and (if any) consultant

C.2.2. Table of Contents

The contents should be automatically generated and include a list of the titles of individual chapters, parts, appendices with their corresponding page numbers.

C.2.3. Introduction

Includes an introduction to the topic and description of the thesis structure. Here it is clarified what problem is solved through the development. Briefly, in a few paragraphs, formulate:

- The relevance and significance of the topic
- In response to what need the development is made and who would be the potential interested parties in this solution
- What is the main goal that the student has set and what tasks must be performed to achieve it (what are the stages of solving the problem)

C.2.4. Exposition

What should the exposition include? The table of contents does not include "exposition". Start directly with the chapters.

- **Chapter 1** - analysis of existing solutions to the problem under consideration (similar solutions and alternatives - advantages and disadvantages), literature on the issue
- **Chapter 2** - problem analysis, selection of appropriate technology, solution design
- **Chapter 3** - implementation - description of the essential stages of implementing the proposed solution and product description

C.2.5. Conclusion

A look back at the work performed, critical self-assessment for achieving the goal, completed tasks, encountered difficulties and solved problems, directions for possible development of the work, etc.

C.2.6. References

List of publications (author, year, title, publisher), as well as internet addresses of the main sources used in preparing the thesis.

Each title included in this list must be cited at least once in the thesis text, and these references must be meaningful - in support of the exposition and in accordance with the content of the source.

Examples of citing in the thesis text: "... Modern distance learning involves 'establishing connections between people and resources using communication technologies for learning purposes' (Ivanov, 2022, p. 17)..."

C.2.7. Appendices

Here may include program fragments, application screens, etc.

D. Thesis Summary

The summary is 3 to 5 pages, including the most essential elements of the development.

The summary presents the thesis as follows: • The topic and its relevance are described • The subject and object of the study are indicated; the tasks (summarized version of the introduction) • Specific generalizations, conclusions, results are indicated (summarized version of the conclusion)

E. Recommended Literature

Students may use the following literature during the preparation of their thesis, and above all consult with their supervisor.

• Eco, U. (1999) How to Write a Thesis. Alexander Panov, S. <http://litenet.bg/publish12/ueko/kak.htm> • Mavrodieva, I. (2005) Academic Writing. Building Successful Written and Oral Skills in the Academic Communication Process. Sema RS, S.

F. Requirements for Volume and Formatting of the Thesis

• **Thesis volume** - The thesis volume is at least 50 pages, A4 format, single-sided, Times New Roman font, formatted with font size 14, line spacing 1.5

• **Use of foreign language terms** - If foreign language terms translated into Bulgarian are used in the thesis, their original name is indicated in brackets

- **Style of exposition** - The style of exposition in the thesis is academic, without using jargon words. The text should not contain spelling and punctuation errors
- **Other requirements** - Pages, figures and tables are numbered. When using an abbreviation for the first time, its full name is indicated in brackets

G. GUIDELINES FOR DEFENSE PREPARATION

The defense is public. Students, members of the State Examination Committee, teachers and experts from IT companies, guests attend. Prepare a presentation for your thesis!

Be clear, brief and precise, don't get carried away with verbosity!

H. DESCRIPTION OF THE DEFENSE PROCEDURE

• You are given the floor to present the thesis: you present your thesis (for no more than 5 minutes) • The reviewer is given the floor (if present) to read their review • Members of the committee are given the floor for questions • After questions from committee members are exhausted, you are given the floor again:

- Very briefly answer the questions from the review, with no more than 3-4 sentences per question, precisely, concretely and clearly!
 - Answer the committee's questions sequentially, with no more than 3-4 sentences per question, precisely, concretely and clearly!

With this, the defense concludes. Evaluation is carried out by the committee immediately after the defense.

I. APPLICATION AND ENROLLMENT IN MASTER'S PROGRAMS

The Department of "Computer Science" offers the following master's programs in the professional field "Informatics and Computer Science" with a duration of 3 semesters:

- Software Engineering and Management
- Digital Marketing and Web Design
- Cybersecurity
- Data Science - **in English**

You can apply and enroll in master's programs immediately after defending your thesis, which we recommend.

Department Contacts

For administrative questions, contact Galina Peneva (administrative secretary of the department):
galina.peneva@vfu.bg

Department official email: cse@vfu.bg

For substantive questions about the thesis, contact your academic supervisor.

Information about current events and initiatives of the department on the department's Facebook page: www.fb.com/cs.vfu, which we ask you to systematically support.

After the thesis defense, you will be invited to join the VSU Alumni community (<http://alumni.vfu.bg/>), although informally we should already be in a professional community through our connections in professional social networks like LinkedIn.