

by the Council of Riga Technical University
Faculty of computer science and information
technology
at its meeting
on April 17 2023
(Minutes No.: 12000-1.1/6)

The order for developing a bachelor thesis in the academic study programs of the Faculty of Computer Science and Information Technology of Riga Technical University

I. General part

1. The order in which a bachelor thesis must be developed in the academic study programs of the Faculty of Computer Science and Information Technology (hereinafter FCSIT) of Riga Technical University (hereinafter RTU) determines the activities that RTU FCSIT students must follow when developing a bachelor thesis in RTU FCSIT academic study programs.
2. This order applies to all academic bachelor study programs of FCSIT RTU.
3. Explanation of terms used in the order document:
 - 3.1. Designation – a reference to the description of the relevant development stage (Activity) of the bachelor thesis;
 - 3.2. Activity – a set of tasks to be performed during the development stage of the bachelor thesis;
 - 3.3. Deadline – the time by which the Activity must be completed;
 - 3.4. Completion necessity:
 - 3.4.1. Mandatory – fulfillable in any respect;
 - 3.4.2. If necessary - can be done in individual cases (discussed in the Activity explanation);
 - 3.4.3. Desirable – recommended, but not Mandatory;
 - 3.5. Student participation in the Activity:
 - 3.5.1. Mandatory – required for the development of the bachelor thesis;
 - 3.5.2. If necessary – can be done in individual cases;
 - 3.5.3. Desirable – recommended, but not Mandatory;
 - 3.5.4. Not applicable – students do not participate in the Activity;
4. The process of developing the bachelor thesis is divided into Activities; the tasks defined in the Activity must be completed by the deadline set for the Activity (Appendix 1).
5. At the beginning of an academic year, the specific dates of Activities are approved by the RTU FCSIT council and published on the FCSIT website.

Activities included in the development process of an academic bachelor thesis

Designation	Activity	Deadline	Completion necessity	Student participation in the activity
5th semester				
5A1	Informing students about the essence of the bachelor thesis	End of Week 4	Mandatory	Desirable
5A2	Informing students about research directions, topics and supervisors before choosing a bachelor thesis topic	End of Week 6	Mandatory	Desirable
5A3	Selection of the bachelor thesis topic and supervisor and issue of the task statement	Monday of Week 10	Mandatory	Mandatory
5A4	Approval of the topic of the bachelor thesis and the choice of supervisor	Monday of Week 11	Mandatory	Not applicable
5A5	Educational seminar on starting the development of the bachelor thesis	End of Week 13	Mandatory	Desirable
5A6	Passing the bachelor thesis development in the 5 th semester	End of Week 20	Mandatory	Mandatory
6th semester				
6A1	Educational seminars on the development of the bachelor thesis	End of Week 2 End of Week 13	Mandatory	Desirable
6A2	Interim control event for the development of the bachelor thesis	End of Week 9	Mandatory	Mandatory
6A3	Bachelor thesis pre-defence	End of Week 12	Mandatory	Mandatory
6A4	Final approval of the bachelor thesis topic and supervisor	14 th day after the pre-defence of the bachelor thesis	If necessary	Not applicable
6A5	Checking the language, formatting and style of the bachelor thesis	According to the wishes of the organizational unit	Desirable	Desirable

6A6	Submitting and uploading the bachelor thesis to the register of graduate papers of the RTU	Tuesday of Week 17	Mandatory	Mandatory
6A7	Plagiarism control in students' bachelor theses	Tuesday of Week 18	Mandatory	Not applicable
6A8	Preparation of supervisor's reference and review of the bachelor thesis	End of Week 18	Mandatory	Not applicable
6A9	Student familiarization with the supervisor's reference and review	The day before the defence	Mandatory	Mandatory
6A10	Defence of the bachelor thesis	End of Week 19	Mandatory	Mandatory
6A11	Submission and consideration of student appeals	5 th working day after defending the bachelor thesis	If necessary	If necessary

5th semester

5A1 - Informing students about the essence of the bachelor thesis

Goal	To inform students about what a bachelor thesis is, why it needs to be developed, what its development process and requirements are
Deadline	End of Week 4
Completion necessity	Mandatory
Student participation in the activity	Desirable
Format	An educational study resource (video recording or presentation) that is available in study courses dedicated to the development of the bachelor thesis with a reminder for students to watch/read it at designated time

5A2 - Informing students about research directions, topics and supervisors before choosing a bachelor thesis topic

Goal	To inform students about available bachelor thesis topics
Deadline	End of Week 6
Completion necessity	Mandatory
Student participation in the activity	Desirable
Format	Each FCSIT institute organizes this seminar separately regarding the place, specific time and format, but the dates are publicly available in one place for all students, so that students of other study programs can also attend them

5A3 - Selection of the bachelor thesis topic and supervisor and issue of the task statement

Goal	To provide students with an opportunity to choose a topic and supervisor of their bachelor thesis and receive a bachelor thesis task statement
Deadline	Monday of Week 10
Completion necessity	Mandatory
Student participation in the activity	Mandatory
Procedure	<ol style="list-style-type: none">1. The student chooses a topic of the bachelor thesis from the list of topics offered by the organizational unit responsible for the implementation of the study program, or it is proposed by the student himself.2. The student agrees with the supervisor on the development of the chosen topic and supervision of the bachelor thesis, as well as thesis tasks and development schedule.

	3. The student prepares the signed application (which has a task statement as an attachment) and the supervisor of the bachelor thesis signs it.
Resources	Uniform format application together with the task statement and schedule in its annex
Notes	According to the RTU Regulation on Final Examinations, a supervisor of the bachelor thesis at academic study programs must be “a member of academic personnel of RTU or an employee of another organization holding a PhD or Master degree in the respective industry, or an employee with the highest professional qualification (Level 5)”

5A4 - Approval of the topic of the bachelor thesis and the choice of supervisor

Goal	To register students' choices regarding the topic and supervisor of the bachelor thesis
Deadline	Monday of Week 11
Completion necessity	Mandatory
Student participation in the activity	Not applicable
Procedure	The student submits an application to the designated registry clerk of the study program and it is coordinated by the head of the study program and approved by the dean
Resources	Uniform format application together with the task statement and schedule in its annex

5A5 - Educational seminar on starting the development of the bachelor thesis

Goal	To provide students with information they need to start developing the bachelor thesis
Deadline	End of Week 13
Completion necessity	Mandatory
Student participation in the activity	Desirable
Format	Each FCSIT institute organizes this seminar separately in terms of location, specific time and format, but information given to students is basically uniform across all institutes, while also allowing for an explanation of institute-specific requirements.
Topics covered in the seminar	<ul style="list-style-type: none"> • General requirements for the bachelor thesis • Institute-specific requirements • Cooperation with the supervisor • Duties and rights of the parties involved • Analysis of information sources • Research methods • Academic integrity
Resources	An educational study resource (presentation or videorecording) supplemented with institute-specific requirements

5A6 - Passing the bachelor thesis development in the 5th semester

Goal	To complete the study plan and follow the regularity and progress of the development of the students' bachelor thesis, aiming towards the desired result and quality level
Deadline	End of Week 20
Completion necessity	Mandatory
Student participation in the activity	Mandatory
Format	Students report on the work done in the development of the bachelor thesis by submitting a written report to the supervisor, which includes: <ul style="list-style-type: none"> ● thesis goal; ● thesis tasks; ● problem statement; ● topicality of the topic; ● results of the analysis of information sources; ● thesis development schedule.
Resources	Uniform format template for the student written report

6th semester

6A1 - Educational seminars on the development of the bachelor thesis

Goal	To educate students on the aspects of bachelor thesis development in order to achieve a high level of quality of the bachelor thesis and avoid violations of academic integrity in students' bachelor thesis
Deadline	End of Week 2 End of Week 13
Completion necessity	Mandatory
Student participation in the activity	Desirable. Students' participation in the seminars does not affect the result of the defence of the bachelor thesis
Number of seminars	Two: the first - on general aspects of the bachelor thesis development (Deadline 1), the second - submission and defence of the bachelor thesis (Deadline 2)
Format	Each FCSIT institute organizes these seminars separately in terms of the place, specific time and format, but information given to the students is basically the same in all the institutes
Resources	An educational study resource

6A2 - Interim control events for the development of the bachelor thesis

Goal	To follow the regularity and progress of the development of students' bachelor thesis, aiming towards the desired result and quality level
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Deadline	End of Week 9
Completion necessity	Mandatory
Student participation in the activity	Mandatory
Number of events	At least one event
Format	Chosen by the study program
Note	The results of the interim control affect the supervisor's evaluation of the bachelor thesis and are a decisive criterion for admission to the final defence

6A3 - Bachelor thesis pre-defence

Goal	<p>The pre-defence has several goals:</p> <ul style="list-style-type: none"> • to evaluate the progress of the bachelor thesis development; • to decide on admitting the student to the final defence; • to provide recommendations for the improvement of the bachelor thesis; • to provide the student with the experience of defending the work; • guide the student to further thesis development activities.
Deadline	End of Week 12
Completion necessity	Mandatory
Student participation in the activity	<p>Mandatory. However, the results of the pre-defence are not taken into account during the final defence</p> <p>If the student does not attend the pre-defence for a non-objective reason, then:</p> <ul style="list-style-type: none"> • The student is not allowed to defend the bachelor thesis within the term provided in the study plan <p>If the student does not attend the pre-defence for an objective reason, then:</p> <ul style="list-style-type: none"> • The student is offered another time for the pre-defence
Format	<ol style="list-style-type: none"> 1. Students upload a draft of the bachelor thesis to the e-study course on the bachelor thesis development 2. Students present the progress of thesis development in the form of an oral report or a poster report <p>The head of the study program has the right to conduct plagiarism control on thesis drafts submitted for the pre-defence. In case of revealing a violation of academic integrity in the draft submitted by the student, the pre-defence of the bachelor thesis is cancelled for the student and the violation is processed according to the procedure adopted by the faculty.</p>

	<p>Time for students' presentations:</p> <ul style="list-style-type: none"> • up to 10 min <p>Content that must be included in student presentations:</p> <ul style="list-style-type: none"> • topicality of the topic; • thesis goal; • thesis tasks; • content of the bachelor thesis, highlighting what has already been done and what remains to be done.
Requirements for successful pre-defence	<p>This is the decision of the pre-defence commission, which takes into account:</p> <ul style="list-style-type: none"> • compliance of the submitted thesis with the defined goal and tasks; • the amount of work done (75%) in terms of completed tasks and achieved results; • a clear and actionable plan for completing the rest; • knowledge of the topic by the student answering the commission's questions. <p>If the pre-defence is unsuccessful, the head of the study program is informed about it and the student is not allowed to defend the bachelor thesis within the term provided in the study plan</p>
Resources	Uniform pre-defence presentation template

6A4 - Final approval of the bachelor thesis topic and supervisor

Goal	To refine the topic of the bachelor thesis without errors in the titles of the thesis in Latvian and English (only for those students who need it after the pre-defence)
Deadline	14 th day after the pre-defence of the bachelor thesis
Completion necessity	If necessary
Student participation in the activity	Not applicable
Notes	If significant corrections of the thesis title are necessary, they are coordinated by the head of the study program and approved by the dean

6A5 - Checking the language, formatting and style of the bachelor thesis

Goal	Examination of the compliance of students' bachelor theses with the requirements of formatting and scientific style
Deadline	According to the wishes and possibilities of the study program
Completion necessity	Desirable event chosen by the study program
Student participation in the activity	Desirable

6A6 -Submitting and uploading the bachelor thesis to the register of graduate papers of the RTU

Goal	To collect bachelor theses of students
Deadline	Tuesday of Week 17
Completion necessity	Mandatory
Student participation in the activity	Mandatory
Procedure	<p>It is recommended to submit the thesis only in electronic form, completing the following steps:</p> <ul style="list-style-type: none"> • the student uploads the electronic copy of the thesis in PDF format to the register of graduate papers on the RTU ORTUS portal; • the student signs the thesis with a secure electronic signature and uploads it to the system; • the student confirms that the thesis has been developed independently and has not been plagiarized; • the supervisor receives an invitation to approve the submission of the thesis. The thesis is not accepted without the supervisor's approval. The supervisor approval serves as an indicator that the thesis is considered submitted for the defence. <p>If it is not possible for the student to submit the thesis in electronic form, then it is possible to submit the thesis in the printed form by agreeing with the head of the study program:</p> <ul style="list-style-type: none"> • the student uploads the electronic copy of the thesis in PDF format to the register of graduate papers on the RTU ORTUS portal; • the student obtains a declaration that the thesis has been developed independently and has not been plagiarized, and that the electronic copy of the thesis corresponds is identical to its printed copy; • the student prints out the declaration, signs it manually and attaches it to the printed copy of the thesis; • the student signs the printed copy of the thesis; • the thesis is approved by the supervisor by signing the printed copy of the thesis. The thesis is not accepted without the supervisor's approval. The supervisor approval serves as an indicator that the thesis is considered submitted for the defence; • the student submits the thesis to the designated registry clerk of the study program.

6A7 – Plagiarism control in students' bachelor theses

Goal	To ensure that the student has not violated academic integrity and that the thesis can be accepted for the defence
Deadline	Tuesday of Week 18
Completion necessity	Mandatory

Student participation in the activity	Not applicable
Procedure	It is carried out in accordance with the procedure adopted by the faculty for handling cases of plagiarism in graduation theses of students

6A8 – Preparation of supervisor’s reference and review of the bachelor thesis

Goal	To fulfil the formal requirements for developing and defending the bachelor thesis, to ensure the evaluation of the submitted bachelor thesis
Deadline	End of Week 18
Completion necessity	Mandatory
Student participation in the activity	Not applicable
Procedure	<ol style="list-style-type: none"> 1. The head of the organizational unit appoints and approves reviewers of students' bachelor theses 2. The designated registry clerk of the study program sends the forms of supervisor’s reference and review to the supervisor and reviewer
Resources	<p>Uniform format supervisor’s reference form</p> <p>Uniform format review form</p>
Notes	<p>According to the RTU Regulation on Final Examinations, reviewers of the bachelor thesis can be “specialists in the respective field or sub-field of science (with at least a Master degree for the Bachelor Papers and a PhD degree for the Master Theses), who work beyond the organizational unit of RTU represented by the scientific advisor of the graduation paper or at another organization beyond RTU; if the responsible organizational unit cannot ensure reviewers who meet the aforementioned requirements, exceptions are possible with the permission of the faculty Dean or the Director of RBS”</p> <p>“If the assessments of the supervisor and the reviewer radically differ, the second reviewer may be appointed for the bachelor thesis.”</p>

6A9 – Student familiarization with the supervisor’s reference and review

Goal	To provide the student with an opportunity to get acquainted with the supervisor's reference and review in order to provide answers to questions and comments indicated in the reference and review during the defence
Deadline	At least a day before defending the thesis
Completion necessity	Mandatory
Student participation in the activity	Mandatory

6A10 - Defence of the bachelor thesis

Goal	To fulfil the formal requirements for developing and defending a bachelor thesis
Deadline	End of Week 19
Completion necessity	Mandatory
Student participation in the activity	Mandatory
Procedure	<ol style="list-style-type: none"> 1. Student's presentation and speech regarding the development of the bachelor thesis 2. Committee questions 3. Reading the review 4. Reading the supervisor's reference 5. Student answers regarding the information provided in the review and supervisor's reference
	Time for student presentations: <ul style="list-style-type: none"> ● 10 minutes
Composition of the commission	<p>According to the RTU Regulation on Final Examinations:</p> <p>One Committee shall be established for each study program, or several Committees may be established when required. The composition of the Committee is proposed by the head of the responsible organizational unit and approved by the faculty Dean. The committee consists of:</p> <ul style="list-style-type: none"> ● the chair of the committee: the head of the study program or a professor or associate professor appointed thereby; ● at least two members of the committee: specialists in the respective field of science holding a doctoral or master degree; ● the secretary of the committee: he/she is not a member of the committee and does not have thesis evaluation rights. <p>The time and venue of the Committee meeting are announced not later than 10 (ten) business days prior to the defence</p>
Evaluation	<p>According to the RTU Regulation on Final Examinations:</p> <p>Student performance at the final examinations is assessed by the Committee at a closed meeting.</p> <p>The assessment is based on:</p> <ul style="list-style-type: none"> ● the presentation of the students; ● the quality of their replies to questions pertaining to the developed paper, the most important fundamental, theoretical industry-specific and field-specific study courses; ● as well as with the account of the supervisor's reference and the reviewer's assessment.
Notes	According to the RTU Regulation on Final Examinations:

	<p>If the bachelor thesis has not been publicly presented within the term specified in the study plan, the following conditions shall be observed:</p> <ul style="list-style-type: none"> • If the bachelor thesis has been developed and submitted within the term set by the faculty, the supervisor's confirmation with regard to the readiness of the thesis for submission has been received and the thesis has been submitted for review, but the student failed to successfully present the thesis at the final defence, the student may be granted an academic leave until the next meeting of the Committee. In this case, the student should pay a fee determined by the Senate for the untimely or repeated taking of the final exam within the study program. • If the bachelor thesis has not been submitted for the defence within the term set by the faculty, or a student has received a failing grade in the defence, the student is exmatriculated for academic failure. Alternatively, the head of the study program may make a decision that a new bachelor thesis should be developed or the student may continue working on the selected topic. If a new bachelor thesis is developed, the student should pay a fee determined by the Senate for the repeated development of the bachelor thesis. If the work on the existing topic is continued, the student should pay a fee set by the Senate for completing the bachelor thesis.
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6A11 – Submission and consideration of student appeals

Goal	To consider appeals submitted by students regarding the conduct of the defence
Deadline	According to the RTU Regulation on Final Examinations: Submission of appeal: no later than by the end of the next business day after the defence Decision-making: no later than 5 working days after receiving the appeal.
Completion necessity	If necessary
Student participation in the activity	If necessary
Procedure	<ol style="list-style-type: none"> 1. The student submits an appeal to the dean of the faculty 2. The dean determines the composition of the Appeals Committee, which consists of at least three persons, not including the members of the committee whose activity has been appealed: <ul style="list-style-type: none"> • dean of the faculty - the chair of the committee; • deputy dean for studies; • one or more invited members. 3. The appeal commission makes a decision and communicates it to the student in writing