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Higher School of Economics National Research University HSE - Lower Novgorod

Faculty computer science, mathematicians And computer sciences

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Guidelines for the preparation and defense of term papers and final qualifying theses for students pursuing a master's degree in Artificial Intelligence and Computer Vision

Master's degree training areas
01.04.02 Applied Mathematics and Computer Science
Faculty of Computer Science, mathematics and Computer Science National Research University HSE – Lower Novgorod

Nizhny Novgorod
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Table of contents

1. General Provisions…… ...…. .3
2. General requirements and objectives of the final qualifying work……. ….....4
2.1. General requirements for the final qualifying work…….……...…..4
2.2. Objectives of the WRC…… ……. ….....……4
3. Stages of preparation and selection of the topic of the final qualifying work …… ……. ……...…….....5
3.1. List and deadlines for the stages of selection and approval of the topics of the final qualifying work ……..…… ...5
3.2. Selecting the topic of the final qualifying work and final qualifying work.....6
4. Completion and assessment of the final qualifying work…… ……. …….…...……7
5. Management of the Final Qualifying Work……...… ……. …..…….11
6. Procedure fordefending a final qualifying work…… ...…. .12
7. Publication and storage of the WRC ……. …….……14
8. Requirements for the design and content of the final qualifying work… ……. …..15
9. Requirements for public defense of the final qualifying work… ……. …….…..…19
10. Criteria for the final assessment of the final qualifying work…… ……...……. …...…..20
11. Appeal against the procedure for defending a final qualifying work… ……..22
Appendix 1. Template of the application form for the WRC
Appendix 2. Templates of individual tasks for the execution of electronic project documentation
Appendix 3. Template for review of the final qualifying work by the supervisor
Appendix 4. Reviewer's review template for final qualifying work
Appendix 5. Template of the title page for the WRC
Appendix 6. Example of formatting the table of contents and headings in the text of the final qualifying work
Appendix 7. Sample of work binding

1. General Provisions

These Methodological Recommendations have been compiled in accordance with the Appendix to Order No. 636 of June 29, 2015 of the Ministry of Education and Science of the Russian Federation “ Procedure for conducting state final certification for educational programs of higher education - bachelor's degree programs, specialist programs and master's degree programs ” (as amended on February 9, April 28, 2016, March 27, 2020), Regulations "On the practical training of students of the main educational programs of higher education - bachelor's, specialist's and master's programs of the National Research University Higher School of Economics" (approved by the Academic Council of the National Research University Higher School of Economics, protocol No. 6 dated 17.06.2021 No. 6 , as amended on 13.07.2021 No. 6.18.1-01/130721-7 , 15.04.2022 No. 6.18.1-01/150422-20, 12.01.2024 No. 6.18.1-01 /120124-4) , the Regulations "On the organization and conduct of state final certification of students of educational programs of higher education - bachelor's, specialist and master's programs of the National Research University Higher School of Economics" approved by the Academic Council of the National Research University Higher School of Economics, protocol No. 03, dated 25.03.2022), " Features of the organization of the state final certification of students of higher education programs - bachelor's, specialist and master's programs of the National Research University Higher School of Economics from among persons with disabilities and individuals with disabilities" (approved by the order of the National Research University Higher School of Economics dated 09.04.2021 No. 6.18.1-01 / 090421-7), the Procedure for applying disciplinary sanctions for violations of academic standards in academic work at the National Research University Higher School of Economics (Appendix 2 to the Internal Rules of Students of the National Research University Higher School of Economics No. 6.18.1-01 / 2207-16 dated 22.07.2016).

These Methodological Recommendations specify the deadlines and supplement the requirements for the preparation, assessment, defense and publication of coursework (CW) and final qualifying works (FQW) undergraduate students , as an element of practical training (EPP), in accordance with the Regulation "On the practical training of students of the main educational programs of higher education - bachelor's, specialist's and master's programs of the National Research University Higher School of Economics."

Students are notified of the requirements for their final qualification work and the procedure for their implementation no later than six months before the State Final Examination (SFE) . The Academic Affairs Office posts this information on the educational program's website within the specified timeframe, as part of the HSE University corporate website (portal). Other methods of information sharing may also be used.

Coursework and final qualifying work must be completed and submitted in Russian, and may also be completed and submitted in foreign languages (if the educational program (EP) is taught in part or in full in the corresponding foreign language). If the EP is taught in a foreign language, the final qualifying work and final qualifying work must be completed in the same language.

2. General requirements final qualifying work

2.1. General requirements for final qualifying work

FQP) is a mandatory element of the educational program and a component of practical training . Defense of the FQP is a mandatory part of the State Final Attestation (GIA). Based

on the level of performance and the results of the FQP defense, the State Examination Commission (SEC) determines whether the graduate can be awarded the appropriate qualification.

In accordance with the level of educational programs of higher education, the final qualifying work is carried out for a master's degree - in the form of a master's dissertation .

■ *Research final qualifying work with elements of practical implementation* – involves research carried out with the aim of obtaining new knowledge about the structure, properties and patterns of the object (phenomenon) being studied, as well as research into an applied problem, as a result of which a product (artifact) is created.

Final qualifying work can be completed by students individually or in a group (no more than 2 people).

The final qualifying work includes the preparation of the final qualifying work (as an element of the EPP) and the defense of the final qualifying work (as a form of state final certification).

Final qualifying work is carried out within a separate curriculum element—"Final Qualification Work Preparation." This element of the curriculum is designed for working on the final qualifying work under the guidance of a supervisor and is assessed during the mandatory midterm assessment—the pre-defense of the final qualifying work. This is a separate grade (pass/fail) assigned before the final qualifying work defense at the State Examination Commission and included in the diploma supplement.

Upon completion of the "Final Qualification Work Preparation" electronic program, the student must submit an interim version of the final qualification work (the Academic Supervisor and/or the Academic Office will provide a link to download the text). The dates for uploading the final qualification work and for the preliminary defense are determined by the Academic Supervisor and are determined before the order for admission to the State Final Attestation (GFA) is issued. In this case, the final qualification work may be revised to a final version after receiving a positive assessment for the "Final Qualification Work Preparation" curriculum element for which the interim version was submitted.

The pre-defense of a final qualifying work may be organized either online or offline. The Academic Supervisor makes the decision on this.

The final qualifying work submitted for pre-defense must contain:

1. Text of the final qualifying work (finished or intermediate version);
2. A ready-made practical part (this could be a repository , a working software product, code, etc.).

At the pre-defense, the student must briefly present the results of his research: topic, relevance, result.

The commission (consisting of at least 3 people) checks the text of the final qualifying work, listens to the student’s report, asks questions and makes recommendations, if necessary.

All retakes for students who received unsatisfactory grades in the pre-defense of their final qualifying work, including due to failure to submit the final qualifying work or due to the discovery of violations of academic integrity, are organized before the end of the academic year of the final year and before the start of the State Final Attestation (GFA).

The defense of a final qualifying work (FQP) is a mandatory part of the State Final Attestation (GIA). Based on the level of performance and the results of the FQP defense, the State Examination Commission (SEC) determines whether the graduate can be awarded the relevant qualification.

Annotations to the final qualifying work texts in Russian and English and the final qualifying work texts are posted in accordance with local regulations of the HSE University on the corporate website (portal) of the HSE University.

If a student has not uploaded their final qualifying work to the HSE University's Electronic Information System:

without good reason: a grade of "0" is given for the defense of the final qualifying work;

For a valid reason: a student is allowed to defend their final qualifying work as part of the current State Final Examination (GFA) if it is possible to arrange for the final qualifying work to be submitted on a new date that allows for the supervisor's review and assessment process to be completed before the State Certification Examination (SCE). If it is not possible to arrange for the final qualifying work to be submitted on a new date as part of the current GFA, the student is deemed to have failed the GFA for a valid reason.

Preparation of the final qualifying work is required for all students studying in the programs Faculty of Informatics, Mathematics and Computer Science – Nizhny Novgorod:

OP "Artificial Intelligence and Computer Vision"

Master's degree training areas

01.04.02 Applied Mathematics and Computer Science

Well	***Type of practice***	***Sign 1[1]***	***Sign 2[2]***	***Volume in z.e.***	***Volume in ac.h.***	***Implementation period***
2	Research Internship Research thesis preparation (offered in a foreign language)	ABOUT	WITH	12	456	13.01.current academic year - 23.05.current academic year

2.1. Objectives of the final qualifying work

The main objectives of the final qualifying work are:

- to deepen, systematize and integrate theoretical knowledge and practical skills in the field of study;
- develop the ability to critically evaluate and generalize theoretical positions;
- apply the acquired knowledge in solving applied problems in the field of study;
- master modern methods of scientific research;
- to determine students' readiness for practical business activities;
- present the skill of public discussion and defense of scientific and/or practical ideas, proposals and recommendations.

3. Stages of preparation and selection of the final qualifying work topic

[1] Compulsory (C) – The EPP is mandatory for all students of the OP.
Elective Subject (E/E) – a student has the opportunity to complete one or more lines from the proposed list of elements in the "Practice" module of the curriculum.

[2] Fixed (F) – the EPP must be completed strictly in the current academic year.
Free (C) – The EPP can be completed throughout the entire period of study until the beginning of the last module of the final year.

3.1. List and deadlines for the stages of selection and approval of final qualifying work topics:

Item No.	Preparation stage	From the date of execution	Responsible for the stage of preparation of the course work/final qualifying work
1.	**Submitting proposals for** final qualifying work topics to the HSE University's Electronic Information and Samples (EISS)	**from September 1 to October 10** of the current academic year	Teachers and researchers with the assistance of administrative staff of departments and scientific divisions, project managers of the faculty
2.	**Coordination of the proposed topics** of the final qualifying work by the leadership of the OP	Technical verification: within **no more than 72 hours** from the moment the application is received for consideration . Checking for compliance by the academic supervisors of the EP: **no more than 96 hours** from the moment the application is received for review	The Academic Director of the EP together with the Academic Council of the EP
3.	**Selection of final qualifying work topics by students / Initiative proposal of topics by students**	**From October 10 to November 1** of the current academic year	Students / academic supervisor of the program
4.	**Selection of received applications for the proposed topics of the final qualifying work**	**From 01 to November 10** of the current academic year	Teachers and researchers with the assistance of administrative staff of departments and scientific divisions, project managers of the faculty
5.	**The second wave of choosing final qualifying work topics, or an initiative proposal by those students whose applications were all rejected**	**From November 1 to November 20** of the current academic year	Student /academic director of the EP/teachers and researchers with the assistance of administrative staff of departments and research units, project managers of the faculty
6.	**Checking whether students have approved final qualifying work topics by their supervisors**	**From November 20 to December 15** current academic year	Academic office of the OP
7.	**Approval of final qualifying work topics in students' individual study plans Assigning themes and supervisors of final**	**No later than December 15** of the current academic year	Academic office of the OP

	qualifying work to students by order		

3.2 Selecting the topic of the final qualifying work

topics must be relevant to the student's educational program and offer relevant new research in the relevant field. Regardless of the chosen language of the work, the thesis topic must be presented in both Russian and English. *It is not recommended to choose a final qualifying work topic whose research results cannot be publicized and presented at the defense due to confidentiality of information.*

The topic for a final qualifying thesis is chosen in the final year of a master's program . Choosing the right topic is often as important as preparing the work itself. It helps determine the overall research strategy and the direction of scientific or practical research in particular . A final qualifying thesis can be a continuation and development of research and project work prepared by the student during their studies. In this case, the student's approach to the same problem reaches a higher theoretical level. A student's scientific or practical interest in specific scientific and practical problems can play a significant role in choosing a topic.

From October 10 to November 1 The topics of the final qualifying work of the current academic year become available for students to choose from .

The student is offered a choice of final thesis topics, along with a designated supervisor. A link or list of topics is provided by a staff member in the Academic Office. Once the student has selected a topic, they approach the designated supervisor and arrange for the work to be written. They then sign the application with the supervisor (Appendix 1) , sign it themselves, and submit the application to the Academic Office.

If a student has not selected any of the proposed topics, they may propose their own topic by discussing it with their prospective supervisor, who has the right to accept or reject it, providing reasons for their decision, or, together with the student, reformulate it and then sign the application with the supervisor. Students can also submit proposals for their chosen topics between October 10 and November 1 of the current academic year.

If no student's application for a final qualifying work topic is approved, he or she has the right **to re-select a topic** between **November 1 and November 20** of the current academic year.

In the period from **November 20 to December 15** of the current academic year, the educational office of the EP compiles **the final lists of final** qualifying work topics chosen by students and the supervisors assigned to them.

No later than December 15 of the current academic year, the topics of students' final qualifying work are assigned to them in the individual study plan, which means that the student is obligated to complete the work.

In case of final qualifying work It's carried out in a group, with students completing different parts of the research and solving different problems to achieve a common goal. Each student must present their work individually .

Changes, including clarification , of the topic of the final qualifying work may be made **no later than one calendar month** before the established deadline for submitting the final version of the final qualifying work by submitting a corresponding application to the dean of the faculty.

Changing or clarifying the topic is accomplished by consulting with the supervisor, submitting a new written request signed by both the student and the supervisor, and handing

it over to a member of the Academic Affairs Office . The submitted request must be approved by the student's academic supervisor, after which the change to the student's final thesis topic is confirmed by an order from the faculty dean.

For students who fail to select a final qualifying work topic within the established deadline, a topic and supervisor will be assigned within 10 (ten) business days after the end of the established deadline. The academic supervisor of the educational program selects a vacant topic/slot on the EPP/ESP supervisor from among those previously agreed upon by the academic supervisor and the head of the department and offered to students in the established manner. If there are no vacant topics/slots on the EPP with a specific EPP supervisor previously agreed upon, the academic supervisor determines and coordinates the topic/slot on the EPP/ESP supervisor with the head of the department participating in the educational program. The results of the assignment are recorded in the UIS by the educational program manager and communicated to the student via a notification in the Electronic Information and Study System (EISS).

The supervisor of the final qualifying work and the educational office of the educational program from December until the established deadline for submitting the final qualifying work provide the necessary advisory assistance at the student’s request, including on issues related to the final qualifying work defense procedure.

4. Completion and evaluation of final qualifying work

After the approval of the topic and the supervisor of the final qualifying work in the individual study program, the student receives from the supervisor an assignment to complete the EPP (Appendix 2) .

full-time students undergo pre-graduation practical training (part-time students undergo practical training in October-November) . The pre-graduation internship supervisor may be either the final qualifying work supervisor or another faculty member . The curriculum then includes a period for final qualifying work preparation.

Signing an individual assignment for completing the EPP is **the first and mandatory checkpoint for each student** in completing any element of practical training.

The second mandatory checkpoint in completing the final qualifying work is the student's presentation to the project supervisor . At this stage, the student must formulate a working hypothesis/thesis concept, define the object and subject of the study, identify the methods, identify the problem the final qualifying work will address, and propose the basic structure of the final qualifying work.

The final qualifying work project can be prepared by the student during a research seminar and individual consultations with the supervisor (potential supervisor).

A student has the opportunity to revise a final qualifying work project that has not been approved by the supervisor and resubmit it. Specific dates for resubmission and evaluation are agreed upon with the supervisor , but no later than December 25 of the current academic year. If the project is not approved by the specified deadline, the supervisor is obligated to notify the academic office of the student's program via corporate email or through a special module in the HSE University's Electronic Information and Study Environment (EISE).

The third mandatory checkpoint is the submission of the first version of the final qualifying work. The text of the first version of the final qualifying work is submitted to the supervisor for comments; if necessary, further corrections are made. Submission of the first

version of the final qualifying work occurs in accordance with the final qualifying work preparation schedule, as reflected in the individual assignment .

The fourth mandatory checkpoint is passing the pre-defense based on the results of completing such an element of the EPP as the preparation of the final qualifying work.

fifth mandatory checkpoint is the submission of the final text of the final qualifying work to the Supervisor by uploading the work in electronic, unscanned form to a special module of the HSE EIS with a mandatory indication of the presence/absence of content generated by automatic content generation algorithms in the final text of the final qualifying work .

If the final version of the thesis uses algorithms for automatic content generation, the student is required to add a special section, “Description of the Application of the Generative Model,” to the text of the work, including a description of the purposes of using the generative model, its name, the address of its website (or a description of another source of the model), and the method of using the model itself.

The supervisor is required to provide a review of the final qualifying work to the academic office of the student's program within seven calendar days of receiving the final version. The review must include a recommended grade for the student's final qualifying work on a 10-point scale. If using the HSE University's Electronic Information and Samples System (EISS), the supervisor uploads the review into a special module, indicating the recommended grade separately. A sample review form is provided in Appendix 3 .

After uploading the final thesis to the dedicated module of the HSE University's Electronic Information and Education System (EIIS), the work is automatically checked for plagiarism by the Antiplagiat system . If plagiarism is proven during the preparation of the final thesis, the student may be subject to disciplinary action in accordance with the Procedure for Applying Disciplinary Sanctions for Violations of Academic Standards in Written Academic Work at HSE University.

The sixth mandatory checkpoint is Reviewing a final qualifying work (FQP). The reviewer is appointed from among HSE faculty or researchers. Reviewers may also be representatives of other higher education institutions or employees of other organizations in the professional field relevant to the FQP topic.

a person external to HSE University , or a person external to department /department /school /to the institute /another department in which the head of the final qualifying work works .

The order appointing a reviewer is signed by the faculty dean upon the recommendation of the program's academic supervisor no later than one month before the scheduled defense of the final qualifying work. The order specifies the student's full name, the final qualifying work topic, and information about the reviewer (full name, academic degree, academic rank, place of work, and current position).

If the reviewer is an HSE employee, the final qualifying work becomes available for viewing in the HSE Electronic Information and Study System immediately after the reviewer's appointment order is approved and the student uploads the final final qualifying work through their personal account.

If the reviewer is not an HSE employee or for some reason cannot access the student's final qualifying work in the HSE Electronic Information and Samples (EISS), the EP's academic office will send the text of the final qualifying work to the reviewer from a corporate

email address no later than three calendar days after it is uploaded to the HSE Electronic Information and Samples (EISS).

When using the HSE University's Electronic Information and Samples System (EISS), the reviewer uploads the review into a special module, separately indicating the recommended grade. If the review is prepared without the HSE University's Electronic Information and Samples System (EISS), the reviewer submits a written review of the final qualifying work to the responsible person from the program's academic office via the corporate email address no later than six calendar days before the defense date. A sample reviewer review form for a final qualifying work is provided in the Appendix. 4 .

The program office uploads a scanned copy of the review to the appropriate electronic module of the HSE University Electronic Information and Samples System (EISS) and indicates the recommended grade. Once the review is uploaded to the HSE University Electronic Information and Samples System (EISS), it becomes available for viewing by the student.

The student is obliged to read the review and prepare responses to the reviewer's comments.

The final qualifying work, the supervisor's review and the review(s) are submitted to the state examination committee no later than two calendar days before the defense of the final qualifying work.

Approximate list of the main stages of preparation of the final qualifying work for educational programs implemented in full-time form:

Item No.	**Preparation stage**	**Execution deadlines**	**Participants in the final qualifying work preparation stage**
1.	**Preparation of the final qualifying work project,** evaluation by the supervisor	The date is set by the supervisor.	student/ leader
2.	Re-presentation final qualifying work project (if not approved by the supervisor)	**No later than December 25** of the current academic year or the date agreed upon with the academic supervisor	student/ leader
3.	**Submission of the first version of the final qualifying work**	The date is set by the supervisor , but **no later than one calendar month** before the planned date of defense of the final qualifying work	student/ leader
4.	**Submission of the interim/final text of the final qualifying work for pre-defense**	Upon completion of the EPP "Preparation of the Final Qualifying Work", but before the issuance of the order on admission to the State Final Attestation	student/ commission/academic supervisor

5.	**Submission of the final text of the final qualifying work**	The date is set by the supervisor, **but no later than 21 calendar days before the defense of the final qualifying work.**	student/ leader
6.	**Uploading a final qualifying work to the Antiplagiat system**	The date is agreed upon with the supervisor.	student (automatically when uploading the final text of the final qualifying work)
7.	**Providing feedback on the final qualifying work by the supervisor**	Within a calendar week after receiving the final version of the final qualifying work	Head of the educational office of the OP
8 .	**Review of the thesis:** appointment of a reviewer by order of the dean of the faculty upon the recommendation of the academic supervisor	The order is signed by the dean of the faculty **no later than one month** before the scheduled date of the final qualifying work defense.	academic office of the educational program / dean of the faculty / academic director of the educational program / reviewer
9 .	**Review of the thesis:** sending the thesis to the reviewer	The Academic Office of the OP coordinates the receipt of the final texts of the final qualifying work by all reviewers **no later than three calendar** days after uploading.	Academic Office of the OP/Reviewer
10 .	**Review of the thesis: receiving reviews and uploading them to the electronic module for viewing by students**	**No later than 6 calendar days before the date of defense of the final qualifying work**	**reviewer/ educational office of the OP/students**
1 1 .	**Submission of the final qualifying work to the State Examination Commission along with the supervisor's and reviewer's feedback**	**No later than 2 calendar days before the defense**	**educational office of the OP/SEC**
1 2 .	**Defense of the final qualifying work**	**The deadlines are determined by the curriculum and the State Final Attestation (GIA) schedule, but no**	**student/ supervisor /academic**

		later than June 30 of the current academic year.	**supervisor/dean of the faculty**

5. Management final qualifying work

The direct supervision of the final qualifying work is carried out by the supervisor appointed by the order of the dean of the faculty.

The supervisors of final qualifying work are HSE employees who have an academic degree (Doctor of Science, PhD , Candidate of Science), as well as practitioners with at least 3 years of experience in the industry, working at HSE (including on a part-time basis).

For students completing their final qualifying work with the assistance of individuals not employed by HSE, these individuals are designated in the order as external co-supervisors of the final qualifying work.

to guide individual sections of the final qualifying work , particularly when the topic is interdisciplinary. Consultants provide recommendations during the development of the final qualifying work and are responsible for providing advisory support to the student.

For work carried out at the intersection of areas, it is possible to engage up to two consultants.

The consultant is obliged to:

– provide advisory assistance to the student in choosing a research/project implementation methodology, in selecting literature and factual material;

– provide the student with recommendations on the content of the final qualifying work.

The decision on the need to appoint a consultant(s) is made by the academic supervisor of the EP (upon the recommendation of the supervisor and in agreement with the head of the faculty) based on the student's application, endorsed by the supervisor.

The replacement of the supervisor, the appointment of consultants and co-supervisors of the final qualifying work is formalized by an order of the dean of the faculty upon the submission of the academic supervisor of the educational program.

Control over the progress and quality of the final qualifying work preparation for defense is carried out by the supervisor and/or co-supervisor of the final qualifying work, as well as by the educational office of the educational institution in relation to issues related to compliance with the deadlines for students to submit the necessary documents and to complete the necessary stages of final qualifying work preparation.

A change of the supervisor of the final qualifying work is permitted no later than 2 months before the defense of the final qualifying work.

The manager is obliged to supervise the preparation of the final qualifying work, including:

provide advisory assistance to the student in determining the final topic of the final qualifying work, in preparing the schedule for completing the final qualifying work, the final qualifying work project, the first version of the final qualifying work, in selecting literature and factual material;

assist the student in choosing a research methodology/project implementation;

together with the student, determine approximate stages of work on the topic;

carry out systematic monitoring of the progress and quality of the final qualifying work preparation in accordance with the plan and schedule for its implementation;

inform the educational office of the OP in case of failure of the student to comply with the schedule for completing the final qualifying work;

provide the student with recommendations on the content of the final qualifying work;

to assess the quality of the final qualifying work in accordance with the requirements imposed on it (including in the form of providing feedback);

coordinate data on the final qualifying work prepared by the student for posting on the corporate website (portal) of the National Research University Higher School of Economics or other open electronic resources.

The manager has the right to:

choose a form of organizing interaction that is convenient for him and the student, including agreeing on the plan for preparing the final qualifying work developed by the student and establishing the frequency of personal meetings or other contacts;

following each meeting, require the student to prepare and agree with him/her on a brief summary of the recommendations received and the planned further steps in preparing the work;

ensure that the student pays close attention to the recommendations received and comes to meetings prepared;

When assigning a grade for a final qualifying work, take into account the student's compliance with the deadlines for submitting the final qualifying work project and the final text of the final qualifying work, as well as the fulfillment of the plans for preparing the relevant work agreed upon with the Supervisor;

participate in the meeting of the State Examination Commission during the defense of the final qualifying work.

6. The procedure for defending a final qualifying work

The manager of the educational program informs the supervisor of the final qualifying work and the reviewer about the need to review the final qualifying work submitted by students within the timeframe established by the educational program in their personal account in the Electronic Information and Study Platform, and about the deadlines for providing feedback/reviews.

Feedback is provided by the final thesis supervisor and reviewer by attaching a text or scanned document file to their personal account in the Electronic Information and Samples (EISS). Receiving a negative review from the final thesis supervisor does not prevent the final thesis from being submitted for defense.

The content of the final qualifying work supervisor's review and the final qualifying work review must be available to the student in their personal account in the Electronic Information and Study System (EISS) before the scheduled defense date of the final qualifying work, no later than 5 calendar days before the defense of the final qualifying work, so that the student can prepare responses in advance to the substance of the comments made by the final qualifying work supervisor and the reviewer.

The program manager in the personal account in the EIS monitors the execution and timing of familiarization of students with the review/review, including when If necessary, consults the head of the final qualifying work and the reviewer on the technological features of working in the EIS.

The final qualifying work, review, and comment(s) must be available for review by the members of the State Examination Committee and the Secretary of the State Examination

Committee in a specialized module within the Electronic Information and Samples (EISS) no later than two calendar days prior to the final qualifying work defense. The Secretary of the local State Examination Committee (SEC) is responsible for ensuring that members of the local SEC are familiar with these materials. They inform the SEC members of the need to review the submitted materials and, if necessary, advise the SEC members on the technological aspects of working within the EISS.

The student has the right, no later than two calendar days before the defense of the final qualifying work, to upload a presentation/other materials accompanying the defense to their personal account in the Electronic Information and Study System for preliminary review by the members of the State Examination Commission.

If any elements of the final qualifying work contain confidential information, the student must submit a document on the confidentiality of the final qualifying work results:

• either a copy of the Non-Disclosure Agreement (NDA) concluded between the company and the student,

• either officially a letter from the company addressed to the academic supervisor, stating which results on the topic of the final qualifying work are confidential .

When choosing a topic for your final qualifying work, it's best to avoid topics that contain confidential information. This makes it difficult to defend and evaluate such work.

The master's thesis presentation is allocated at least 12 minutes .

Upon a written application from a student with disabilities, the duration of the state certification test may be extended in relation to the established duration: the duration of the student's speech in defense of the final qualifying work - by no more than 15 minutes.

The report should begin with a justification for the relevance of the chosen topic, a description of the scientific problem, and a statement of the work's purpose. Then, in the order established by the logic of the research, the main content of the work should be revealed chapter by chapter, focusing on the most important sections and interesting results, the work's novelty, critical comparisons, and evaluations. The final section of the report follows the text of the final thesis, listing the general conclusions from the text without repeating the specific generalizations made in the characterization of the chapters of the main body, and consolidating the main recommendations.

The student must present the main content of their final qualifying work freely, without reading the written text. The presentation may include a computer presentation of the final qualifying work, prepared visual aids (tables, diagrams), or other materials illustrating the main points of the final qualifying work.

Each student defends their final thesis individually, completed as part of a group project. All group members defend their thesis at a single committee meeting. Each student presents their findings, highlighting their work within the overall topic of the final thesis.

After completing the report, the committee members ask the student questions, both directly related to the final qualifying work topic and those closely related to it. When answering questions, the student is allowed to use their final qualifying work.

After the student answers the committee members' questions, the supervisor's assessment of the final qualifying work /final qualifying work is announced, and a review of the final qualifying work may be read . After the assessment and review of the final qualifying work are announced , the committee members and all those present may ask the student any clarifying questions.

After the student answers the questions from the State Examination Committee members , a review of the final qualifying work is read. After this, the State Examination Committee members and everyone present can ask the student any clarifying questions.

Participation in the meeting of the local State Examination Commission of the head of the final qualifying work and (or) the reviewer of the final qualifying work is not mandatory.

After the discussion, the student is given a closing statement. In their closing statement, the student must respond to the comments of the supervisor and reviewer, if any, in the review. After the student's closing statement, the defense is considered complete.

The commission's decision on the final assessment is based on the assessments of the supervisor, reviewer, commission members , and the criteria for assessing the final qualifying work :

- the student's compliance with deadlines for submitting the final qualifying work project and the final text of the final qualifying work, as well as the implementation of the plan for preparing the final qualifying work agreed upon with the academic supervisor ;
- its scientific level, relevance of the research topic, practical significance for the chosen subject area;
- the ability to analyze and evaluate both domestic and foreign documentary and literary sources;
- use of other types of PP materials;
- creative approach to theme development;
- the correctness and scientific validity of the conclusions;
- style of presentation of the material;
- compliance of the final qualifying work with the established requirements;
- the degree of professional preparation of the student, demonstrated both in the content of the work and in the process of defense .

The assessment of the final qualifying work is given by the members of the commission at its closed meeting , in the absence of the student, and is then announced to all students. The final grade for a student's final qualifying work defense, using the five-point and ten-point grading systems, is recorded in the report or in the minutes of the local State Examination Commission meeting. If a student is absent from the defense, the minutes will record their absence instead of the final grade.

7. Publication and storage of the WRC

Publication of abstracts and full texts of final qualifying work on the corporate website (portal) of the National Research University Higher School of Economics is carried out in accordance with the legislation and local regulations of the National Research University Higher School of Economics .

Requirements for publication and storage of final qualifying work .

The State Examination Committee may recommend the publication of the final qualifying work results in academic and technical publications, the publication of abstracts and full texts of the final qualifying work on the HSE portal and other Internet resources.

Final qualification works in paper and electronic format are stored in the Program's academic office for five years after the students complete their studies, and are then submitted for safekeeping to the HSE Archives.

8. Requirements for the design , structure and content of the final qualifying work

The volume of the final qualifying work must be at least 40 pages of typewritten text , not counting the pages of the Appendix (if any) .

By agreement with the supervisor, the volume of work may be smaller, provided that the research topic is covered.

Technical requirements .

The final qualifying work is printed on a standard sheet of A4 paper. Margins are left on all four sides of the printed sheet: left margin – 30 mm , right margin – no less than 10 mm, top and bottom margin – no less than 20 mm. The approximate number of characters per page is 2000. The font is Times. New Roman font size 14, line spacing 1.5. Justified alignment.

Page numbers are continuous. The title page is considered the first page of the work, but it is not numbered . The table of contents is numbered page 2. Page numbers are placed at the bottom of the page, centered.

The title page and table of contents are formatted according to the established template (Appendices 5 and 6). The table of contents includes all sections of the work, with page numbers indicated.

Each new chapter begins on a new page; the same rule applies to other main structural parts of the work (introduction, conclusion, bibliography, appendices, etc.). Properly formatted headings help to clearly highlight the structure of the text, making it more readable and easier to understand. Headings should clearly and concisely reflect the content of sections and paragraphs . It's best not to split a heading into multiple sentences. Headings should be capitalized, without a period at the end, not underlined , but bolded.

Chapters of the work are numbered sequentially, starting with the first. A period is placed after the chapter number. For example, **Chapter 1. Designing a system for recording student work** . The table of contents , introduction, conclusion, and bibliography are not numbered. Chapters should have sequential numbers throughout the document, designated by Arabic numerals. Paragraphs should be numbered within each chapter . The paragraph number consists of the number chapter and paragraph number , separated by a period. After the paragraph number, before its name is followed by a period, for example : **2.1 . Architecture of the plagiarism search system in source code .**

Times font is used to enter first-level headings (chapter titles, introduction, conclusion, bibliography, appendix). New Roman font size is 16 pt, bold. The spacing before the first-level heading is 0 pt. The Times font is used for second-level headings (paragraph titles, etc.). New Roman font, 14 pt, bold. Headings at all levels are not indented. Center alignment (Appendix 6). Further indentation is single from the main text. Double indentation is used at the end of each paragraph and before the next heading .

Each paragraph should begin with a new line—a paragraph indent. The indentation is 1.25 centimeters. Each paragraph should contain a complete thought and typically consist of 4-5 sentences. A paragraph that is too long makes it difficult to understand and indicates an inability to clearly express thoughts.

The following is not allowed in the text of the work:

- use colloquial speech patterns, technicalities, and professionalisms;
- use different scientific and technical terms for the same concept that are close in meaning (synonyms), as well as foreign words and terms in the presence of equivalent words and terms in the Russian language;

- use arbitrary word formations, abbreviations of words, except for those established by the rules of Russian spelling, the relevant state standards, and those given in the work itself;

- abbreviate the designations of units of physical quantities if they are used without numbers, with the exception of units of physical quantities in the headings and sidebars of tables in the explanations of letter designations included in formulas and figures.

In addition, in the text of the work, with the exception of formulas, tables and figures, it is not allowed to use the mathematical minus sign before negative values of quantities (the word "minus" should be written); to use the sign "Ø" to indicate the diameter (the word "diameter" should be written); to use mathematical signs without numerical values, for example, > (greater), < (less), = (equal), ≥(greater than or equal), etc. The names of commands, modes, signals, etc. in the text should be highlighted with quotation marks and font, for example, " Ctrl + Alt + Del " or "File →Send Message...".

The document should use standardized units of physical quantities, their names and designations in accordance with GOST 8.417-2002 .

The final qualifying work must be bound. See Appendix 7 for a sample.

Rules for writing letter abbreviations .

In addition to generally accepted abbreviations, the final thesis may use abbreviations introduced by the author himself, abbreviating concepts from relevant fields of knowledge. The first mention of such abbreviations is indicated in parentheses after the full name; they are subsequently used in the text without further explanation.

Rules for writing formulas and symbols .

Formulas are placed on separate lines in the center of the page or within text lines. It is recommended that formulas in the text be short, simple, have no independent meaning, and are not numbered. The most important formulas, as well as long and cumbersome formulas containing summation, product, differentiation, and integration signs, are placed on separate lines. To save space, several short, similar formulas, highlighted from the text, can be placed on a single line rather than one below the other.

Formulas must be set in a consistent manner, using the same fonts and symbols, and using the same justification (horizontal alignment) for formulas typed on separate lines. Single-line formulas must be set in the same font as the main text. The font size of multi-line formulas may be reduced.

The most important formulas referenced in the work should be numbered. Formula numbers are indicated by Arabic numerals in parentheses at the right edge of the page.

Rules for the design of tables, figures, graphs .

Tables and figures must have titles and sequential numbers (e.g., Table 1, Fig. 3). Table and figure numbers must be consistent throughout the text of the coursework/ graduation thesis. The sequential number of the table is placed in the upper right corner above its title. Table titles begin with a capital letter and do not end with a period. If a table title spans two or more lines, it should be written with single line spacing. Header rows should be centered within the cells (horizontally and vertically) .

Each table should indicate the units of measurement for the indicators and the time period to which the data relates. If the unit of measurement in a table is common to all numerical tabular data, it is included in the table heading after the table name.

Tables must be formatted consistently (fonts and rules, headings and columns, paragraph indents, headings, etc.). Text in tables is set in a reduced font size with single line spacing.

For example, if the main text is set at 1.4 font size , tables are set in a font with a set size of 1.1-12 font .

All tables in the work must be referenced in the text. Table references are given in the format " Table N ," where N is the table number. The abbreviation "see" is used if the table and reference are on different pages, for example , "See Table 1." It is advisable to place a table in the document after the reference to it, within the spread on which the reference appears. If the table is large, it may be placed in an appendix .

The figure's serial number and title are placed below the figure. When plotting graphs along the coordinate axes, the corresponding indicators are entered, the letter designations of which are placed at the ends of the coordinate axes, indicated by arrows. If necessary, explanatory captions are added along the coordinate axes.

When using materials borrowed from literary sources or citing various authors, appropriate citations must be provided , and a bibliography must be included at the end of the work. Not only citations but also free exposition of fundamental principles borrowed from literature must be included in the final qualifying work, with a citation. Verbatim or close-to-text reproduction of information, as well as borrowing ideas without citing the source, are considered plagiarism.

Rules for the formatting of the list of references (sources used or bibliographic list - any of the specified names is allowed).

The bibliography (or reference list) includes literary, statistical, and other sources used in writing the work. It includes such sources as monographs and educational literature, periodicals (magazine and newspaper articles), legislative and instructional materials, statistical collections and other reporting and accounting materials, and websites.

Methods of arranging material in the bibliography : in the order in which they appear in the text , therefore different alphabets are mixed in one list; foreign sources are placed among Russian-language publications – in the order in which they appear in the text .

When compiling a bibliography, all book details are included: the author's last name and initials, the book's title, the place of publication, the publisher's name, and the total number of pages. For articles published in periodicals, the title, issue, year, and page count should be indicated .

Rules for the formatting of footnotes in the text of the sources used .

When citing a text, the quotation is given in quotation marks, followed by square brackets indicating the number from the bibliography under which the source of information is listed. For example, E. A. Balandina and S. V. Timoshenko understand the event " an instantaneous change in the state of some object in the system. From a dynamic point of view, the system is viewed as a set of interconnected processes, and the interaction between them is controlled and coordinated by ongoing events . " [3]

Bibliography (placed at the end of the work)

1. Fedorov I.G. Modeling business processes in BPMN 2.0 notation / Scientific and practical publication. - M: MESI, 2018. - 133 p.

2. D a Silva Moreira Ferreira, A., Loiola , E., Guedes Gondim , SM Motivations, business planning, and risk management: entrepreneurship among university students // RAI Revista de Administração e Inovação . 2017. v.14 , i.2. – pp. 140-150.

3. Balandina E.A. , Timoshenko S. V. Review and analysis of modeling tools. Contemporary issues of science and education. 2014. No. 3. URL : https://science-education.ru/ru/article/view?id=13178 (accessed: 09/27/2024).

If If the original source is not cited, but the main points are taken from it, then quotation marks are not used, and the reference to the work used is also made in square brackets.

Rules for the design of applications .

An appendix is an optional part of the work that serves an additional, usually reference, purpose, but is necessary for a more comprehensive coverage of the topic. The content of appendices can vary greatly: copies of original documents, excerpts from reports, individual provisions from instructions and regulations, etc. They can take the form of text, tables, graphs, maps , or diagrams .

Appendices are not counted in the overall volume of the final qualifying work , but the work has continuous numbering, so appendices continue the numbering of the pages of the work (i.e., if the list of references ends on page 52, then Appendix 1 will be placed on page 53, etc.) . If there are several appendices, then each is numbered separately (Appendix 1, Appendix 2). Each appendix should begin on a new page with the word "Appendix" indicated in the upper right corner and have a thematic heading. The connection between the main text and the appendices is carried out through links , for example, (See Appendix 1) . The appendix is reflected in the table of contents of the work as a separate section with the full title of each appendix.

The text of the final qualifying work, appendices (program source codes, executable file, etc., or a link to the resource on which they are posted) and the presentation must be uploaded as a single archive to the HSE Electronic Information System .

The text of the final qualifying work must be uploaded to the Antiplagiat system .

If the final qualifying work is completed by a group of students, then the relevant documentation is prepared by each student separately for their part of the work.

Annotations to the final qualifying work texts in Russian and English and the final qualifying work texts are posted in accordance with local regulations of the HSE University on the corporate website (portal) of the HSE University.

9. Requirements for public defense of final qualifying work

Final qualifying works completed by students of educational programs are subject to mandatory public defense.

The public defense of the final qualifying work takes place in module 4 according to the approved schedule.

The following documents are submitted for the defense of the final qualifying work:

- the text of the final version of the final qualifying work in paper bound form;
- review of the final qualifying work supervisor;
- review of final qualifying work;
- standard registration form printed from the Antiplagiat LMS system page ;
- other demonstration and handout materials for the State Examination (including a working application (executable code) for the final qualifying work completed in the format of a course project; a program (source code and executable file) for the final qualifying work completed in the format of a research paper, etc.) .

The final version of the final thesis in hard copy, along with the supervisor's review, critique (for final thesis) , and presentation, are submitted in Russian or English, depending on the language in which the thesis was completed. The student defends the thesis in the language (Russian or English) in which it was completed.

For students with disabilities, the State Final Attestation is conducted taking into account the characteristics of their psychophysical development, their individual capabilities and health status (hereinafter referred to as individual characteristics).

A student with a disability must submit a written request to the Academic Support Office (hereinafter referred to as the Academic Support Office) no later than three months prior to the State Final Examination (GIA) regarding the need for special accommodations for the student, specifying their individual needs. Documents confirming the student's individual needs must be attached to the request (if these documents are not already in the student's personal file).

In the application, the student indicates the need (if any):

presence of an assistant at the state certification test;

the need to increase the duration of the state certification test in relation to the established duration (for each state certification test).

The educational program manager, based on the submitted application and the documents presented (available in the student’s personal file), determines the necessity and possibility of satisfying the student’s application.

Depending on the individual characteristics of students with disabilities, the academic supervisor of the educational program determines the possibility of passing the state certification test in a form accessible to the student (oral or written); ensures the use of teaching aids (including technical teaching aids and specialized software) sufficient to conduct the state certification test for students, taking into account their individual characteristics: blind and visually impaired, deaf and hard of hearing, with severe speech impairments, with musculoskeletal disorders, etc.

The academic director of the educational program, when organizing the State Final Attestation (GFA) for students with disabilities, ensures compliance with the following general requirements:

conducting the State Final Attestation (GFA) in one classroom together with students who do not have individual disabilities, if this does not create difficulties for them in passing the GFA;

the presence in the classroom of an assistant(s) who provides students with disabilities with the necessary technical assistance, taking into account their individual characteristics (to take up a workstation, move around, read and complete an assignment, communicate with members of the state examination committee);

use of necessary technical means by students with disabilities when passing the State Final Attestation (GIA), taking into account their individual characteristics;

Conducting the State Final Attestation (GFA) in the classrooms and academic buildings of the National Research University Higher School of Economics with the possibility of barrier-free access for students with disabilities to the classrooms, restrooms and other premises, as well as their stay in the said premises (availability of ramps, handrails, widened doorways, elevators; in the absence of elevators, the classroom should be located on the first floor, availability of special chairs and other devices).

A student with disabilities, but not classified as disabled, has the right to submit a written request to the academic office requesting special accommodations for the state assessment examinations stipulated by Russian Federation law, specifying their individual needs, no later than one week before the start of the state assessment. Documents confirming the student's

individual needs must be attached to the request. The decision on the need for special accommodations is made by the academic director of the educational program.

10. Criteria for the final assessment of the final qualifying work

The final qualifying work is assessed by the State Examination Committee based on the results of the defense, and the assessments of the supervisor and reviewer are advisory in nature.

Evaluation criteria for thesis/final qualification work:

• the student's compliance with deadlines for submitting the final qualifying work project and the final text of the CR/FQP, as well as the implementation of the CR/FQP preparation plan agreed upon with the academic supervisor;

• its scientific level, relevance of the research topic, practical significance for the chosen subject area;

• ability to analyze and evaluate both domestic and foreign documentary and literary sources;

• use of other types of PP materials;

• creative approach to theme development;

• correctness and scientific validity of the conclusions;

• style of presentation of the material;

• compliance of the final qualification work with the established requirements;

• the degree of professional preparation of the student, demonstrated both in the content of the work and in the defense process.

Итоговая оценка по ВКР выставляетс я путем открытого голосования членов ГЭК. Rounding of the final grade of the final qualifying work is arithmetic (to the nearest integer).

If the work is completed in a group, the grade for a specific EPP is assigned individually to each student, taking into account the volume and quality of their contribution to the overall result.

It is permissible to establish an individual assessment algorithm for each student within a single group completing a single EPP, depending on the specifics of the specific EPP and the role of each participant. However, the combined algorithms for individual assessments must not conflict with the achievement of the stated objectives.

specific EPP.

A student who failed the State Final Attestation (GFA) (received an unsatisfactory grade in the defense of their final qualifying work) and was expelled for failing to fulfill their obligations to conscientiously master the educational program and complete the curriculum, upon reinstatement at HSE, has the right to retake the GFA no earlier than the following calendar year within the timeframes specified for conducting the GFA for final-year students, but no earlier than 10 months and no later than five years after the GFA that the student failed.

When re-taking the State Final Attestation in the form of defending a final qualifying work, at the student's request, a different topic for the final qualifying work and/or a different supervisor for the final qualifying work may be established.

Repeated state certification tests for one person cannot be assigned more than two times.

A student who failed the State Final Attestation (GFA) due to failure to appear for the state certification test for a valid reason has the right to take the GFA within six months of completing the GFA, without being expelled from HSE.

A student who has failed one state certification test for a valid reason is allowed to take the next state certification test (if any).

Valid reasons for failure to appear for the state certification test include:

an illness confirmed by a medical certificate of the established form, presented to the educational office on the day on which classes are scheduled to begin;

Other exceptional reasons that objectively prevented the student from appearing for the state certification test, documented no later than three business days after the absence. These reasons may include:

an individual educational plan of a student participating in international academic mobility, which provides for a later period of participation in the State Final Attestation than that established in the educational program's curriculum;

The individual educational plan of a student whose deadlines for preparing and (or) defending a final qualifying work have been postponed to the next academic year due to special objective circumstances, due to which the student no longer has access to materials, data, or equipment for completing the final qualifying work in full;

illness or death of close relatives;

performance of public or state duties;

summons to law enforcement agencies, court, or other bodies, appearance at which, in the presence of a summons/subpoena, is mandatory by law;

transport problems (flight cancellation, lack of tickets);

force majeure circumstances, including the presence (arising during the process of conducting the state certification test in a remote format) of technical problems, the consideration of which is carried out in accordance with the procedure established by the university.

Valid reasons do not include a student's absence from a state certification test caused by circumstances related to the student's work (business trips, working hours). The decision to recognize such a reason for absence as valid is made by the dean of the faculty in agreement with the academic director of the educational program.

A student who has appeared for the state certification test but decides that they are unable to participate due to health reasons must declare this before the defense of their final qualifying work. This is recorded in the minutes of the local State Examination Commission meeting as "absence." The reason for absence from the state certification test may be considered valid if the student confirms it in accordance with the established procedure.

If a student begins their final thesis defense but subsequently withdraws, the completed portion of the final thesis report is assessed according to the recommended criteria. If a student withdraws from the defense and fails to complete any portion of the work, this is recorded as a grade of "0" in the minutes of the local State Examination Commission meeting, regardless of the availability of a medical certificate either before or after the withdrawal .

11. Appeal against the procedure for defending a final qualifying work

Students have the right to appeal the results of their state assessment examinations. State assessment results may be annulled by decision of the Academic Audit Committee.

may serve as grounds for an appeal : *violation, in the student's opinion, of the established procedure for defending the final qualifying work.*

An appeal can be submitted by the student to the AC secretary in person or by sending a corresponding request from a corporate email address no later than the next business day

after the announcement of the state certification examination results. The appeal procedure, including information about the AC secretary and their contact information, is posted on the website of the faculty or educational program.

The AC secretary registers incoming applications in the registration log, in which he/she must indicate the date of receipt of the application, the student's full name, his/her position and surname.

To consider the appeal, the secretary of the local State Examination Commission, at the request of the chairman of the AC, sends to the AC:

minutes of the meeting of the local State Examination Commission ;

a conclusion from the chairman of the local State Examination Commission on compliance with procedural issues during the state certification test, if the appeal is motivated by a violation of the procedure for conducting the state certification test;

video recording of the state certification test.

The appeal is reviewed no later than two business days from the date of filing the appeal at a meeting of the Academic Audit Committee, which is held in person or remotely. The chairperson of the local State Examination Commission and the student filing the appeal are invited to the meeting. The Academic Audit Committee meeting may be held in the absence of the student filing the appeal if they fail to appear.

AC meetings are held with the participation of at least two-thirds of the AC members. During the discussion and final decision of the AC, the chairperson of the local State Examination Committee and the student leave the AC meeting or are disconnected from the videoconference by the secretary.

Decisions of the AC are made by a simple majority of votes of the AC members participating in the meeting. In the event of a tied vote, the AC chair has the casting vote.

The minutes of the AC meeting, maintained by the AC secretary, include a list of questions posed to the student and a summary of the responses, as well as the opinion of the chairperson of the local State Examination Commission regarding the grounds for appeal, as stated by the student. The minutes record the decision made by the AC, which must be accompanied by a reasoned conclusion. A sample of the AC minutes is provided in the appendix to the AC Regulations.

The minutes of the AC meeting are printed by the AC secretary and signed by the chair and secretary of the AC. If such signing is not possible, the AC secretary sends the minutes to the AC chair by email. The chair signs the minutes and, in turn, sends a scanned copy of the signed minutes to the AC secretary, who, after signing the minutes, ensures that the original minutes are signed and subsequently stored.

The AC's decision is communicated by the AC secretary to the student who filed the appeal within three business days of the AC meeting. The student is provided with the AC's minutes in person or by sending a scanned copy. to the student's corporate email.

A copy of the minutes must be accompanied by information about the review period and procedure. The student is obligated to review the minutes of the AC. The fact that the student who filed the appeal has reviewed the AC's decision must be confirmed in person or by a reply sent to the AC secretary no later than the next business day from the date the minutes were sent, clearly stating that the student has received the minutes. Otherwise, the AC secretary will draw up a document refusing to review the minutes (an appendix to the minutes), which is signed by the AC chair (or one of the AC members present at the meeting) and the AC secretary.

The minutes of the AC meetings (including appendices) are bound into books no later than the end of the calendar year and transferred to the structural divisions, which ensure their storage for 5 years, after which the minutes are transferred to the Administration for archival storage.

When considering an appeal, the AC makes one of the following decisions:

on rejection of the appeal if the information contained therein was not confirmed and (or) did not affect the outcome of the state certification test;

on satisfying the appeal if the information presented in it was confirmed and influenced the outcome of the state certification test.

In the event of a positive decision taken by the AC, the result of the state certification test is subject to cancellation, in connection with which the protocol on the consideration of the appeal is transferred to the local State Examination Commission no later than the next working day for the implementation of the AC decision.

If the appeal is upheld, the student is given the opportunity to take the state certification test within the timeframe established by the educational program, but before the end of the academic year specified in the academic schedule for the current academic year. The re-defense of the final qualifying work (FQ) is carried out in the presence of the chair of the Academic Committee or one of the members of the FQA appointed by the chair of the Academic Committee. When re-defending a final qualifying work (FQA), the FQA previously submitted in accordance with the established procedure cannot be amended or replaced.

The decision of the AC is final and not subject to revision.

An appeal for re-administration of the state certification test will not be accepted .

Appendix 1

Template of application form for VKR

To the academic director of the educational program
by field of study
_____

_____
(Full name of the academic manager) HSE University – Nizhny Novgorod
From a student of group _____
_____
(Student's full name)

STATEMENT

Please approve the topic of my final qualifying work.

Topic title in Russian:
_____
_____
_____
_____

Topic title in English:
_____
_____
_____
_____

As the supervisor of the final qualifying work, I ask you to approve _____

_____
(position, degree, full name)

_____
(Student's signature)
«____» _____20___

"Agreed"
Scientific supervisor _____/_____
(Signature and full name)
«____» _____20___

"Approved"
Academic Supervisor _____/_____
(Signature and full name)

Appendix 2

Template for completing a final qualifying work assignment

Federal State Autonomous Educational Institution
institution of higher education
National Research University Higher School of Economics

TASK FOR EXECUTING THE EPP

Issued to a full-time/part-time student, group _____

_____ **Full name** _____

Field of study (specialty): _____

Name of the OP: _____

Faculty: Informatics, Mathematics and Computer Science

Type of internship: final qualifying work

Type of practice: _____

Internship period: from "___" _____ 202 to "___" _____ 202

Subject (title) of the EPP (topic of the thesis/final qualification work)	_
Labor intensity (number of credits) for the EPP	
The purpose of the EPP	To deepen, systematize, and integrate theoretical knowledge and practical skills in the field of study; to develop the ability to critically evaluate and generalize theoretical principles; to apply acquired knowledge in solving applied problems in the field of study; to stimulate independent analytical skills; to master modern methods of scientific research; to determine students' readiness for practical work in a market economy; to present skills in public discussion and the defense of scientific ideas, proposals, and recommendations.
Tasks of the EPP	Demonstrate skills independent research and/or practical work .
Requirements for the EPP result	The finished text of the final qualifying work
Reporting format	Final text

Necessity/possibility of public presentation of the result	Public defense
Requirements for the EPP performer	Successful mastery of curriculum elements throughout the entire period of study

Schedule for the implementation of the EPP

Implementation stage of the EPP	**Document**	**Deadline**
1. Signing the assignment	Assignment signed by the student	*dd.mm.yyyy*
2. Intermediate result	*To be completed by the head of the EPP*	*dd.mm.yyyy*
3. Final report	*Select: report / final text of the thesis/final qualification work*	*dd.mm.yyyy*

Head of the EPP from HSE:

(job title)	*(signature)*	*(surname, initials)*

The task has been accepted for execution. ___.___.202__

Student

(signature)	*(surname, initials)*

Appendix 3

Sample supervisor's review of the final qualifying work

Federal State Autonomous Educational Institution of Higher Education "National Research University "Higher School of Economics "

Faculty of Informatics, Mathematics and Computer Science

Manager's review
for the final qualifying work

Student (s) _____ _____ _ ,

(last name, first name, patronymic)

_____ course, level of education : master's degree
educational program _____ _____ _____ _ _____
Faculty of Informatics, Mathematics and Computer Science
on the topic: "_____ _____ _____ _ _____
_____ _____ _____ ____ _____»
percentage of borrowing from the Antiplagiat system report _____

No. p/ p	**Evaluation criteria**	**Manager evaluation**
1.	Statement of the problem and justification of its relevance	
2.	The conceptual apparatus used	
3.	Completeness of the presentation of approaches to solving the problem unde study and/or the project being develope	
4.	Independence in performing work	
5.	Novelty and/or practical significance of the results obtained	

6.	Reliability of the results obtained	
7.	Clarity of the materials presented	
8.	Compliance with design rules	

Comments on ratings: _____ ___ _____ __ _____

Positive aspects of the job: _____

Disadvantages of the job:
_____

Overall, the student demonstrated a high/medium/low level of competence development .

Grade recommended grade **for the final qualifying work** _____out of 10 [1].

The final qualifying work meets/does not meet the requirements for this type of work and can / cannot be recommended for defense.

Supervisor
academic degree, title,
Department/Chair _____ _____ / __ _____ _____
(place of work) signature First name, last name
Date

[1] [1]Rating on a 10-point scale (numbers from 1 to 10): 10 Brilliant (excellent); 9 Excellent (excellent); 8 Almost excellent (excellent); 7 Very good (good); 6 Good (good); 5 Very satisfactory (satisfactory); 4 Satisfactory (satisfactory); 3 Poor (unsatisfactory); 2 Very poor (unsatisfactory); 1 Very unsatisfactory (unsatisfactory).

Appendix 4

Reviewer's review template for a final qualifying work

Federal State Autonomous Educational Institution of Higher Education "National Research University"
Higher School of Economics

Faculty of Informatics, Mathematics and Computer Science

Review
for the final qualifying work of a master's student

Student(s)_____,
(last name, first name, patronymic)

_____ course, educational program__ ___ _____
Faculty of Informatics, Mathematics and Computer Science
on the topic: "_____ __ _____
_____ __ _____»

The reviewer is obliged to conduct a qualified analysis of the main provisions of the reviewed final qualifying work, the presence of his own point of view/design solution, the ability to use scientific research/design methods, the degree of validity of the conclusions and recommendations/adequacy of the means of achieving results, the reliability of the results obtained/the appropriateness of the obtained products, solutions, their novelty and practical significance.

Conclusion : *The final qualifying work meets/does not meet the requirements for this type of work and can / cannot be recommended for defense .*

Recommended rating: _____ _____ out of 10 [1].

Reviewer
academic degree, title,
department/faculty (place of work) _ _____ _____ / _____ _____
Date Signature I.O. Surname

[1] Rating on a 10-point scale (numbers from 1 to 10): 10 Brilliant (excellent); 9 Excellent (excellent); 8 Almost excellent (excellent); 7 Very good (good); 6 Good (good); 5 Very satisfactory (satisfactory); 4 Satisfactory (satisfactory); 3 Poor (unsatisfactory); 2 Very poor (unsatisfactory); 1 Very unsatisfactory (unsatisfactory).

Appendix 5

KR / VKR title page template

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HIGHER EDUCATION

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HIGHER SCHOOL OF ECONOMICS

Faculty of Informatics, Mathematics and Computer Science

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Last name, first name, patronymic of the author[1]

TITLE OF THE THESIS / FINAL THESIS

Final qualifying work – MASTER'S THESIS

in the field of study _____

educational program

"_____"

Reviewer *(if any)*
PhD/ Dr. of _____sciences, associate professor/ prof.

_____
First name, last name

Supervisor
PhD/ Dr. _____ of Sciences, Associate Professor/ Prof.

_____
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Consultant *(if any)*
PhD/ Dr. _____ of Sciences, Associate Professor/ Prof.

_____
First name, last name

Nizhny Novgorod, 202_

[1] In case of group preparation of a thesis/final qualification work, all authors are indicated.

Appendix 6

Example of a table of contents for the topic: **Development of a web analytics reporting service**

Table of contents

Introduction…… …….
……..3
Chapter 1. Overview of web analytics services…… …….
……..…6
1.1. Yandex.Metric …… ... 6
1.2. Google Analytics
…….…… ..9
1.3. Carrot
quest……12
Chapter 2. Requirements Identification and Analysis…… …….
……14
2.1. Requirements…… …….
……..……....14
2.2. Use Case Diagram…… ……. …..……....…18
Chapter 3. Designing a Web Service…… ……. ……...22
3.1. Business Process Modeling…… ……. ……22
3.2. Description of system operations and system messages…… ……. ……..…..25
3.3. Database model …… ...
3.4. Designing the user interface …… ...
Chapter 4. Software implementation and stabilization of the web
service……...34
4.1. Implementation models…… …….
……..34
4.2. Selection of technologies and tools…… ……. ……..…...37
4.3. Implementation of the authentication module…… …….
……..40
4.4. Implementation of the report template management module…… …….
.42
4.5. Implementation of the report generation module……
……. 44
4.6. Web service testing…… ……. ……..…..46
Conclusion …… ...
Bibliographic list…… ……. ……50
Appendix 1. Application name
Appendix 2. Application name

Example of heading formatting in text

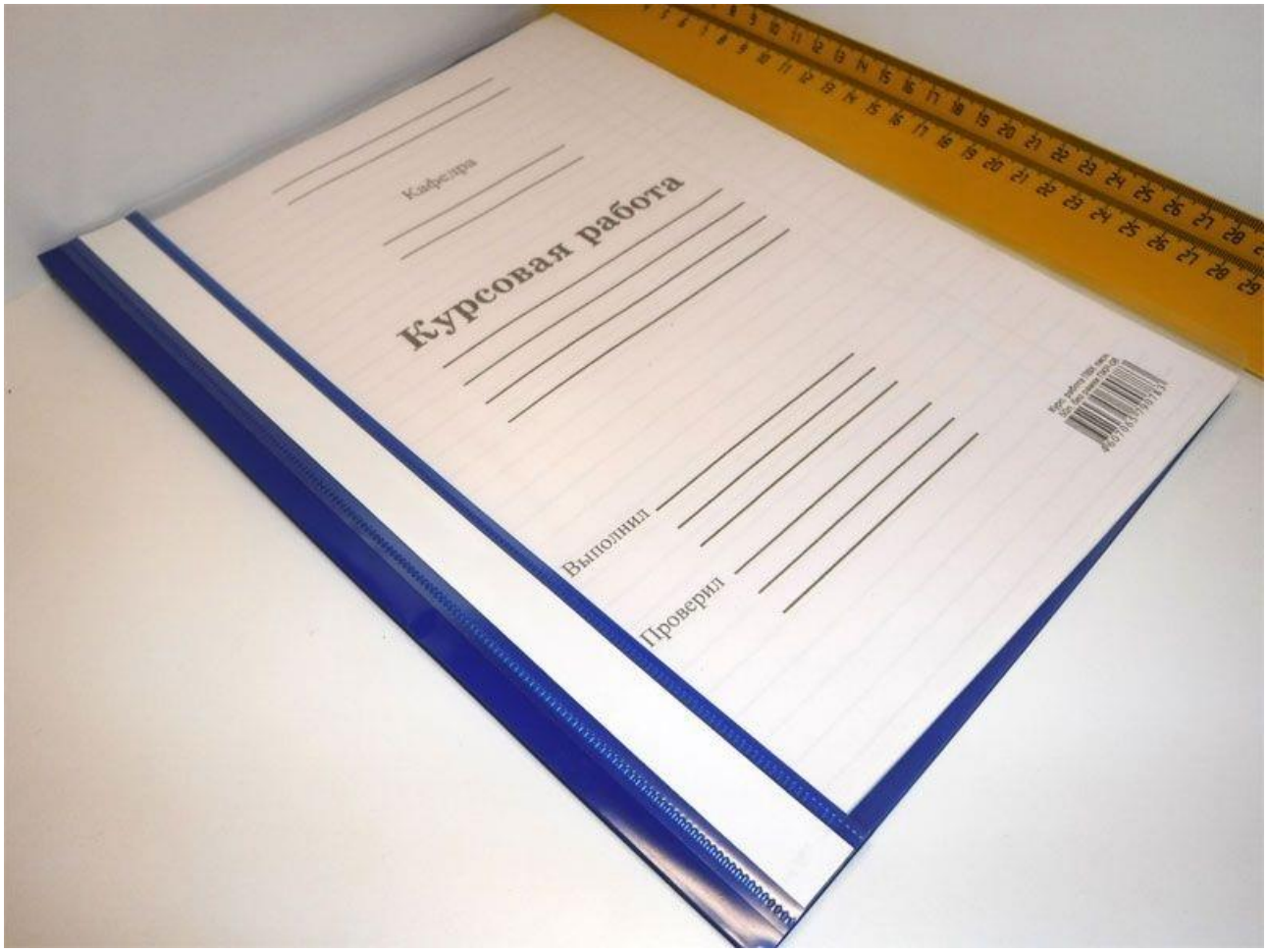
Chapter 1. Overview of web analytics services (16 p-r)

1.1 Yandex.Metric (size 14)

Appendix 7

Examples of binding of thesis and final qualification papers

The text of the work is stitched together. The review, critique, and certificate from the Antiplagiat system are included with the work (not stitched in).



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