

Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Таскаев Сергей Валерьевич
Должность: Ректор
Дата подписания: 08.04.2026 16:57:59
Уникальный программный ключ:
04c19ed8bf98f3b6cb77a486b0a9788018701527

MINISTRY OF EDUCATION AND SCIENCE OF RUSSIA
Federal State Budgetary Educational Institution of Higher Education
Chelyabinsk State University (FSBEI HE CSU)
Faculty of Mathematics

The program of the final state certification in the field of training
01.04.01 Mathematics of the Direction "Fractional Differential Equations"

page 1 of 5



APPROVING

Vice-Rector for Academic Affairs

A.A. Salamatov

02

03

2026

Program

OF THE FINAL STATE CERTIFICATION

Field of study (specialty)

01.04.01 Mathematics

Directionality (profile)

"Fractional differential equations"

Assigned qualification (degree)

Master

The form of education

Full-time

The recruitment year is 2026

Chelyabinsk, 2026

*The final state certification program is adapted for inclusive education of people with disabilities and people with disabilities



The final state certification program has been adopted:

Academic Council of the Faculty of Mathematics

protocol dated February 19, 2026 No. 8

Chairman of the Academic Council
of the Faculty of Mathematics

A.S. Skorynin

Secretary of the Academic Council
of the Faculty of Mathematics

Ya.K. May

**The program of the state final attestation was approved and recommended by
the Department of Mathematical Analysis**

Protocol dated January 30, 2026 No. 7

Head of the Department
of Mathematical Analysis

V.E. Fedorov

**The program of the final state certification was compiled in accordance with
the requirements** of the Federal State Educational Standard for Higher Education in
the field of education (specialty) 01.04.01 Mathematics, approved by Order No. 12
of the Ministry of Education and Science of the Russian Federation dated January
10, 2018.

**The program of the final state certification corresponds to the approved
curricula in the field of training (specialty) 01.04.01 Mathematics directionality
"Fractional differential equations ".**



Content

1. The introduction part	4
1.1. The purpose of the final state certification.....	4
1.2. The forms of conducting and complexity of the state final certification tests..	4
2. The list of competencies that students should master as a result of mastering the basic professional educational program of higher education.....	4
3. The structure of assessment tools for final state certification.....	5
4. Documentation regulating the conduct of state certification tests	5



1. The introduction part

1.1. The purpose of the final state certification

The purpose of the final state certification is to determine the compliance of the results of students mastering the educational program of higher education – the master's degree program, with the requirements of the current federal state educational standard of higher education (FSES HE) of the field of study (specialty) 01.04.01 Mathematics.

1.2. The forms of conducting and complexity of the state final certification tests

In accordance with the Federal State Educational Standard for Higher Education in the field of 01.04.01 Mathematics, the "final state certification" block includes:

- Completion and Defence of the Final Qualification Paper (9 credits)

2. The list of competencies that students should master as a result of mastering the basic professional educational program of higher education

Competence codes	The content of competencies
UC-1	Able to critically analyse problem situations on the basis of a systematic approach, develop a strategy of action.
UC-2	Able to manage a project at all stages of its life cycle.
UC-3	Able to organise and lead a team, developing a team strategy to achieve the set goal.
UC-4	Able to apply modern communicative technologies, including in foreign language(s), for academic and professional interaction.
UC-5	Able to analyse and take into account the diversity of cultures in the process of intercultural communication.
UC-6	Able to identify and implement priorities of own activity and ways to improve it on the basis of self-assessment.
GPC-1	Able to formulate and solve relevant and meaningful problems in mathematics.
GPC-2	Able to build and analyse mathematical models in modern natural science, engineering, economics and management.
GPC-3	Able to use knowledge in the field of mathematics in carrying out pedagogical activities.
PC-1	Able to carry out research work in the field of differential equations.
PC-2	Capable of teaching mathematical disciplines in vocational training programmes, secondary vocational education (SVE) and additional programmes (AP).
PC-3	Able to understand the principles of operation of modern electronic computers and computing machines, work in a team, manage teamwork.



3. The structure of assessment tools for final state certification

No.	The form of the state attestation test	Controlled competencies (list the competence codes)	Name of the evaluation tool
1	Defence of the Final Qualification Paper	UC-1; UC-2; UC-3; UC-4; UC-5; UC-6; GPC-1; GPC-2; GPC-3; PC-1; PC-2; PC-3	The text of the FQP, the student's report, the review of the supervisor, the answers to additional questions

4. Documentation regulating the conduct of state certification tests

4.1. The type of FQP, structure, content, design, presentation for defense and the procedure for defending Final Qualification Paper (FQP) are determined by the requirements for the FQP and the procedure for its implementation adopted at the Faculty of Mathematics.

4.2. A list of competencies that students should master as a result of mastering the educational program, a description of indicators, criteria and scales of competence assessment during the FSC, standard control tasks or other materials necessary for evaluating the results of mastering the educational program, including sample topics for final qualifying papers, methodological materials defining procedures for evaluating the results of mastering the educational program at the The protection of the FQP is determined by the FSC assessment funds adopted by the Faculty of Mathematics.