

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
Federal State Autonomous Educational Institution
of higher education
NORTH CAUCASUS FEDERAL UNIVERSITY

APPROVED BY:

Faculty of Mathematics and Computer
Science named after Professor
N.I. Chervyakov
T. A. Grobova
Full name

Assessment Tools Fund on the Discipline
WRITING AND ACADEMIC COMMUNICATION FOR INTERNATIONAL
ELECTRONICS JOURNALS / НАПИСАНИЕ ТЕКСТОВ И НАУЧНАЯ
КОММУНИКАЦИЯ ДЛЯ МЕЖДУНАРОДНЫХ ЖУРНАЛОВ ПО ЭЛЕКТРОНИКЕ
Discipline (module) title

Training program	02.04.01 Mathematics and Computer Sciences
Directivity (profile)	Training Program for Electronic Information
Year of admission	2026
Mode of study	intramural
Implemented in	1

Developed by

Associate Professor of the
Department of Computational
Mathematics and Cybernetics at the
Faculty of Mathematics and
Computer Science named after
Professor N.I. Chervyakov
Lapina M. A.

Stavropol 2026

Introduction

1. Purpose: The Assessment Tools Fund (ATF) is intended for the objective assessment of the level of competencies formation in the discipline "Writing and Academic Communication for International Electronics Journals / Написание текстов и научная коммуникация для международных журналов по электронике" for students studying in the Master's program 02.04.01 Mathematics and Computer Sciences, profile "Training Program for Electronic Information".

2. Scope: The ATF provides structured instruments for continuous monitoring of student progress and intermediate certification in Semester 1. Competencies assessed: UC-4.1, UC-4.2, OPC-1.1, OPC-1.1, (as defined in Section 3 of the Work Program).

3. Developer: Lapina M.A., Associate Professor of the Department of Computational Mathematics and Cybernetics at the Faculty of Mathematics and Computer Science named after Professor N.I. Chervyakov.

4. The ATF assessment was conducted.

Expert group members:

Chairperson:

Poddubnaya N.A., Chairperson of the Teaching and Methodological Complex, Faculty of Mathematics and Computer Science named after Professor N.I. Chervyakov

Commission members:

Gladkov A.V., Member of the Teaching and Methodological Complex, Department of Computational Mathematics and Cybernetics;

Andrukhiv L.V., Member of the Teaching and Methodological Complex, Department of Mathematical Modeling;

Kopytkova L.B., Member of the Teaching and Methodological Complex, Department of Mathematical Analysis, Algebra, and Geometry.

Employer representative: Lapin V.G., Head of the Automated Control Systems Department, Stavropol Regional Clinical Consultative and Diagnostic Center.

Expert opinion: The ATF assessment for the discipline "Writing and Academic Communication for International Electronics Journals / Написание текстов и научная коммуникация для международных журналов по электронике" allows for assessing the level of competence development. Recommend for use in the educational process.

«____» _____ 2026 г.

5. The ATF validity period is determined by the implementation period of the educational program.

1. Description of criteria for assessing competencies at various stages of their formation, description of assessment scales

Competency (ies), Indicator (s)	Level of competencies formation			
	Minimum level not reached (Unsatisfactory) 2 grade points	Minimum level (Satisfactory) 3 grade points	Medium level (Good) 4 grade points	High level (excellent) 5 grade points
Competency: UC-4 Able to apply modern communication technologies, including in a foreign language(s), for academic and professional interaction				
Learning outcomes for the course: <i>Indicator:</i> UC-4.1 uses the basics of establishing different types of communication (oral, written, business, intercultural, network, etc.) when solving professional tasks	Cannot use types of communication to solve professional problems	Uses an acceptable minimum of types of communication to solve professional problems	It uses the basics of establishing various types of communication (oral, written, business, intercultural, network, etc.) in solving professional tasks	Competently and fully uses the basics of establishing various types of communication (oral, written, business, intercultural, network, etc.) when solving professional tasks
Learning outcomes for the course: <i>Indicator:</i> UC-4.2 uses various types of communication technologies for academic and professional interaction	Cannot use different types of communication technologies for academic and professional interaction	Uses an acceptable minimum of different types of communication technologies for academic and professional interaction	The company uses various types of communication technologies for academic and professional interaction	Competently applies various types of communication technologies for academic and professional interaction
Competency: OPC-1 Able to apply fundamental knowledge and modern programming technologies to solve professional problems				

Learning outcomes for the course: <i>Indicator:</i> OPC-1.1 Implements basic machine learning algorithms for classification (Python/NumPy)	Can't work with machine learning models	Implements machine learning models; partially works with programming results	Implements machine learning models; works correctly with programming results	Implements machine learning models; demonstrates an understanding of complexity trade-offs; includes comprehensive testing; works correctly with programming results
Learning outcomes for the course: <i>Indicator:</i> OPC-1.2 Able to work with code, understands the logic and meaning of the program	Does not understand the logic and meaning of the program, cannot work with the code	Understands the logic and meaning of the program, can answer questions about the code	He is able to work with the code, understands the logic and meaning of the program, can answer questions about the code, but is not able to independently change the code or its logic	He is able to work with the code, understands the logic and meaning of the program, can answer questions about the code, is able to independently change the code or its logic

The assessment of the level of development of competence in the discipline is carried out on the basis of the "Regulations on the current monitoring of academic performance and midterm assessment of students in higher education programs – bachelor's programs, specialist programs, master's programs – at the federal state autonomous educational institution of higher education "North Caucasus Federal University" in the current version.

ASSESSMENT TOOLS FOR CHECKING THE LEVEL OF DEVELOPMENT OF COMPETENCIES

Task Number	Correct Answer	Question Content	Competency
		Semester 1	
1.		Typology of scientific publications	UC-4.1, UC-4.2
2.		Working with sources and databases, selecting suitable articles	UC-4.1, UC-4.2
3.		Critical selection and relevance assessment of literature sources	UC-4.1, UC-4.2
4.		Writing a literature review and citation	UC-4.1, UC-4.2
5.		Analysis of literature sources	UC-4.1, UC-4.2
6.		LaTeX – design of the text, headings, and sections of the article	UC-4.1, UC-4.2
7.		LaTeX – design of the list of references	UC-4.1, UC-4.2
8.		Creating a Timeline	UC-4.1, UC-4.2
9.		Introduction, relevance and objectives of the study	UC-4.1, UC-4.2
10.		Conducting research, preparing a Dataset	OPC-1.1, OPC-1.2
11.		Conducting research, workingwith ML models	OPC-1.1, OPC-1.2
12.		Conducting research, working with the results of forecasting	OPC-1.1, OPC-1.2
13.		Methodology and results of the study	UC-4.1, UC-4.2
14.		Conclusion, inputs, abstract, keywords	UC-4.1, UC-4.2
15.		Reviewing	UC-4.1, UC-4.2
16.		Report and presentation of research results	UC-4.1, UC-4.2

2. Description of the rating scale

Under the rating system, student performance in the course "Writing and Academic Communication for International Electronics Journals / Написание текстов и научная коммуникация для международных журналов по электронике" is assessed through ongoing assessments and midterm assessments. The rating system for assessing student knowledge is based on a set of assessment activities (checkpoints) optimally spaced throughout the course. The principles of the rating system for assessing student knowledge are based on the requirements described in the Regulation on the Organization of the Educational Process Based on the Rating System for Assessing Student Knowledge at the North Caucasus Federal University. The discipline uses a 5-point grading scale aligned with university regulations for continuous monitoring and intermediate certification. A minimum threshold of 3.0 (Satisfactory) in each component is required to pass the discipline.

3. 4. Competencies assessment criteria*

The grade “**excellent**” is given to a student if he/she:

skilfully identifies a problem situation, carries out its analysis and diagnostics based on a systematic approach; confidently searches, selects and systematizes information to determine alternative options for strategic solutions in a problem situation; perfectly determines and evaluates the risks of possible solutions to a problem situation, chooses the best option for solving it; confidently chooses ways of constructive interaction with people, taking into account their socio-cultural characteristics in order to successfully complete professional tasks and strengthen social integration.

The grade “**good**” is given to a student if he/she:

correctly identifies a problem situation, carries out its analysis and diagnostics based on a systematic approach; searches, selects and systematizes information to determine alternative options for strategic solutions in a problem situation; correctly determines and evaluates the risks of possible solutions to a problem situation, chooses the best option for solving it; chooses ways of constructive interaction with people, taking into account their socio-cultural characteristics in order to successfully complete professional tasks and strengthen social integration.

The grade “**satisfactory**” is given to a student if he/she:

with some errors identifies a problem situation, carries out its analysis and diagnostics based on a systematic approach; partly searches, selects and systematizes information to determine alternative options for strategic solutions in a problem situation; determines and evaluates the risks of possible solutions to a problem situation, chooses the best option for solving it; hesitantly chooses ways of constructive interaction with people, taking into account their socio-cultural characteristics in order to successfully complete professional tasks and strengthen social integration.

The grade “**unsatisfactory**” is given to a student if he/she:

finds it difficult to identify a problem situation, carries out its analysis and diagnostics based on a systematic approach; hesitantly searches, selects and systematizes information to determine alternative options for strategic solutions in a problem situation; with gross errors determines and evaluates the risks of possible solutions to a problem situation, chooses the best option for solving it; finds it difficult to choose ways of constructive interaction with people, taking into account their socio-cultural characteristics in order to successfully complete professional tasks and strengthen social integration.