

Ministry of Science and Higher Education of the Russian Federation
NATIONAL RESEARCH
TOMSK STATE UNIVERSITY (NR TSU)

Institute of Applied Mathematics and Computer Science



A. V. Zamyatin

Evaluation materials of the current control and intermediate certification in the discipline

(Evaluation tools by discipline)

Social Media Analytics

in the major of training

01.04.02 Applied mathematics and informatics

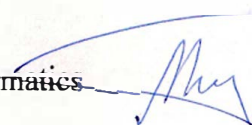
Orientation (profile) of training:

Big Data and Data Science

ET was implemented:
Senior Lecturer
Department of Theoretical Foundations of Informatics

 V.L. Goiko

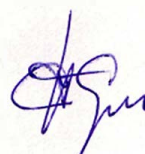
Reviewer:
Dr. tech. sciences, professor,
Head of the Department of Theoretical Foundations of Informatics

 A.V. Zamyatin

Evaluation tools were approved at a meeting of the educational and methodological commission of the Institute of Applied Mathematics and Computer Science (EMC IAMCS).

Protocol dated 22.05.2025 № 1

Chairman of the EMC IAMCS,
Dr. tech. Sciences, Professor

 S.P. Sushchenko

Evaluation tools (ET) are an element of the system for assessing the formation of competencies among students in general or at a certain stage of its formation.

The ET is developed in accordance with the work program (WP) of the discipline.

1. Competencies and training outcomes, obtained upon the discipline mastery

Competencies	Competence indicator	Code and name of planned training outcomes that characterize the stages of competency formation	Criteria for evaluating training outcomes			
			Excellent	Good	Satisfactory	Unsatisfactory

PC-4. Able to define a problem situation, set tasks for data analysis in the social sciences, select mathematical and hardware tools for their solution	IPK-4.1. Gives an assessment of the behavior of society or its individual groups based on data analysis. IPK-4.2 Collects information from the Internet, incl. from social networks and processes it. IPC-4.3 Analyzes the received information and finds hidden patterns.	As a result of mastering the discipline, the student will Know: – possibilities and limitations of methods of processing and analysis of sociological data. (OP-4.1.1) Own: – the content of the main methods of processing and methods of statistical analysis of sociological data; have the skills to work with specialized software. (OP-4.2.1) Be able to: - process, analyze and competently draw up the results of statistical analysis of sociological data. (OP-4.3.1)	Has a well-formed idea of the possibilities and limitations of methods for processing and analyzing sociological data. Knows how to correctly apply the content of the main methods of processing and methods of statistical analysis of sociological data; has the skills to work with specialized software. Able to correctly process, analyze and correctly draw up the results of statistical analysis of sociological data.	7Has a general idea of the possibilities and limitations of methods for processing and analyzing sociological data. Knows how to correctly apply the content of the main methods of processing and methods of statistical analysis of sociological data. Able to correctly process, analyze and correctly draw up the results of statistical analysis of sociological data.	Has a poor understanding of the possibilities and limitations of methods for processing and analyzing sociological data. In general, a successful, but not systematically implemented, ability to apply the acquired knowledge about the content of the main methods of processing and methods of statistical analysis of sociological data; does not have the skills to work with specialized software.	Has no idea about the possibilities and limitations of methods for processing and analyzing sociological data. Does not know how to apply the acquired knowledge about the content of the main methods of processing and methods of statistical analysis of sociological data; does not have the skills to work with specialized software. Does not know how to process, analyze and correctly draw up the results of statistical analysis of sociological data.
--	---	---	---	--	---	---

2. Stages of competency formation and types of evaluation tools

№	Stages of competency formation (discipline sections)	Code and name of training outcomes	Type of evaluation tool (tests, assignments, cases, questions, etc.)
1	Topic 1. Introductory lecture	(OP-4.1.1)	Questions Tasks
2	Topic 2. Development of the problem and research hypothesis	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks
3	Topic 3. Methodology of social research	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks
4	Topic 4. Features of the quantitative and qualitative strategy of social research	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks
5	Subject. 5. Classification of social research methods	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks
6	Topic 6. Program (design) of social research	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks
7	Topic 7. Sampling method in social research	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks
8	Topic 8. Analysis of social research data	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks
9	Topic 9. Methodology and methods of natural language analysis	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks
10	Topic 10. Network analysis in social research	OP-4.1.1, OP-4.2.1, OP-4.3.1	Questions Tasks

3. Typical control tasks or other materials necessary for the assessment of educational training outcomes

3.1. Typical tasks for conducting ongoing monitoring of progress in the discipline:

The main forms and stages of assessing the current performance and monitoring the independent work of students in the study of the discipline is project work. The project work solves the problem of developing competencies to form the ability to independently formulate goals, set specific tasks for scientific research in various fields of sociology and solve them using modern research methods using the latest domestic and foreign experience and using equipment and information technologies.

Requirements for writing a research project

During the course of the research project, the student must submit:

- analysis of literature on the chosen topic;
- research program;
- justify the choice of method and develop data collection tools;
- sample design;
- to carry out the field stage of the study;
- process, describe and interpret the received data;
- present the results in the form of a report.

Approximate topic of the research project

- 1.Features of the life style of student youth
- 2.Expectations of young professionals in employment
3. Reasons for the decline in student performance
- 4.Religiosity of the youth of Tomsk
5. The unemployed of Tomsk and the possibility of their adaptation
- 6.Motives for choosing a profession for students
7. Demonstrative consumption of student youth
8. Forms of civic engagement of students
- 9.Leisure of youth
- 10.Secondary employment of students
11. Gender stereotypes as a factor of gender asymmetry
- 12.Motivation of members of online communities
- 13.Policy and activities of private sports facilities
14. Conditions for the development of educational achievements of secondary school students
15. Value orientations of participants in political organizations

The program of independent work of students is focused on the formation and development of abilities to develop a program of social research, tools, independently organize the entire course of research; as well as analyze, interpret information and competently present the received data.

Independent work within the discipline includes work with basic and additional literature, preparation, as well as the implementation of a research project.

3.2. Typical tasks for conducting intermediate certification in the discipline.

Questions for exam tickets:

1. The concept and characteristics of the methodology of scientific research, the features of the use of specific methodological principles in sociological research.
2. Methodological substantiation of the choice of the type of research in sociology, criteria and classifications, detailed characteristics of the types of sociological research.
3. Cognitive possibilities of quantitative and qualitative research in sociology, their types, strategy and tactics of organization and conduct.
4. The program of sociological research, the main requirements for its development and the functions performed.
5. Sections of the program of sociological research: characteristics and requirements, main shortcomings in the development and implementation.
- 6.Methodological section of the sociological research program: structure, development requirements, main mistakes.
7. General and sample populations in a sociological study.
8. Sampling: types and methods of development, strategies for calculating its volume, errors and ways to overcome them in sociological research.
9. Functions of a question in sociological research, basic approaches to classification, principles and rules of formulation.
- 10.Characteristics of the types of questions in a sociological study, the main mistakes in constructing a questionnaire.

11. Poll in a sociological study: quality criteria, classification of species, technical means of conducting.

12. Questionnaire survey in a sociological study: characteristics, scope, requirements for the organization, procedure for conducting, advantages, disadvantages and difficulties.

13. Sociological interview: characteristics, scope, requirements for the organization, procedure for conducting, advantages, disadvantages and difficulties.

14. Expert survey: characteristics, scope, requirements for the organization, procedure, advantages, disadvantages and difficulties.

15. Focus group in sociology: characteristics, scope, requirements for organization, procedure, advantages, disadvantages and difficulties.

16. Observation in a sociological study: characteristics, scope, requirements for organization, procedure for conducting, advantages, disadvantages and difficulties.

17. Measurement in sociology, its methods, procedures and main criteria.

18. Analysis of documents in sociology, the specifics of using traditional and formalized methods, the specifics of using the content analysis method in sociological research.

19. Projection methods in sociology, areas of their application, basic procedures, advantages and disadvantages of use in sociological research.

20. Ways of presenting the results of sociological research: basic requirements, rules and shortcomings.

During the exam, the teacher draws up exam tickets, which include two theoretical questions and a practical task (the student performs on a computer). The wording of the questions coincides with the wording of the list of examination questions brought to the attention of students on the eve of their delivery. The content of the questions of one ticket relates to various topics of the program in order to more fully cover the material of the academic discipline.

4. Methodological materials that determine the procedures for evaluating training outcomes

4.1. Methodological materials for assessing the current control of progress in the discipline.

With current control, everything is checked at once on the basis of the material studied during the semester.

4.2. Methodological materials for conducting intermediate certification in the discipline.

The grade "excellent" is set if the student has shown a deep and complete knowledge of the material of the academic discipline, assimilation of basic and additional literature recommended by the working program of the academic discipline.

A student who has shown full knowledge of the main material of the academic discipline, knowledge of the main literature and familiarity with additional literature recommended by the work program deserves a "good" rating.

The "satisfactory" rating deserves a student who, when answering the exam, showed knowledge of the basic provisions of the academic discipline, made some errors and managed to eliminate them with the help of a teacher, who is familiar with the basic literature recommended by the work program.

An "unsatisfactory" grade is given if the answer revealed significant gaps in the knowledge of the main provisions of the academic discipline, the student's inability to formulate the correct answers to the questions of the exam ticket even with the help of a teacher.