МИНОБРНАУКИ РОССИИ
федеральное государственное бюджетное образовательное учреждение
высшего образования
«ИРКУТСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ»
ФГБОУ ВО «ИГУ»

Кафедра европейских языков

УТВЕРЖДАЮ:
Директор МИЭЛ _____ О.В. Архипкин
« 22 » апреля 2026 г.

Рабочая программа дисциплины

Наименование дисциплины	**Б1.В.ДВ.01.02 Современные технологии вербальной обработки информации / Modern Technologies of Verbal Information Processing**
Направление подготовки	**45.04.02 Лингвистика**
Направленность подготовки	Проектирование цифрового лингвистического образовательного контента / Digital Linguistic Educational Content Design»
Квалификация выпускника –	магистр
Форма обучения	очная с применением электронного обучения, дистанционных образовательных технологий

Согласовано с УМК МИЭЛ ИГУ:
Протокол № 3 от « 23» марта 2026 г.
Председатель _____
Е. В. Крайнова

Рекомендовано кафедрой:
Протокол № 7 от «10» марта 2026 г.
Зав. кафедрой _____
И. С. Шильникова

Иркутск 2026 г.

Б1.В.ДВ.01.02 Современные технологии вербальной обработки информации / Modern Technologies of Verbal Information Processing

Discipline goal is: to develop in students a complex of knowledge and skills in computer processing of linguistic data as a scientific and practical basis for carrying out professional activities.

Discipline objectives:

- To form an understanding of modern methods of obtaining, processing, and storing information;
- To form an understanding of the application of modern information technologies in linguistics and linguistic analysis;
- To form in students an understanding of the principles of constructing mathematical models of information processing and the limits of applicability of computer and quantitative methods in linguistics and philology;
- To form an understanding of the essence of mathematical information processing in humanities research and the ability to apply in practice a number of quantitative methods that have gained recognition in humanities research;
- To introduce the achievements and possible prospects of the "mathematization and computerization" of theoretical and applied linguistics.

I. CONTENT AND STRUCTURE OF THE DISCIPLINE

The volume of the discipline is 7 credits, 252 hours,
including 0.25 credits, 8 hours for the pass/fail exam (credit), and including 1 credit, 36 hours for the exam.
Form of intermediate assessment: 1st semester – pass/fail exam (credit), 2nd semester – exam.

4.1 The content of the discipline, structured by topic, indicating the types of training sessions and the number of academic hours allocated to them.

/п	Discipline section / Topic	Semester	Total hours	Practical training of students	Type of work / Independent study / Practical training / Workload (hours)				Forms of ongoing academic performance assessment / Form of interim assessment (by semester)
					Contact hours			Independent Work (including extracurricular independent work and independent supervised work	
					Lectures	Practical classes	Consultations		
	2		4	5	6	7	8	9	10
	Topic 1. Introduction to the subject.	1	14		2	0	0	8	Oral questioning / Exam
	Topic 2. Information resources.	1	16		2	2	0	8	Oral questioning / Exam

	Topic 3. Sources and providers of information resources.	1	16		2	2	0	8	Report with presentation / Exam
	Topic 4. Creating and editing text documents.	1	18		2	2	0	8	Test / Exam
	Topic 5. Creating and using templates and custom styles.	1	18		2	2	0	8	Test / Exam
	Topic 6. Automation of large document preparation	1	18		2	2	0	8	Test / Exam
	Topic 7. Creating presentations in MS PowerPoint	1	18		2	4	0	8	Test / Exam
	Topic 8. Using the MS Excel spreadsheet processor for processing verbal information	1	18		2	4	0	8	Test / Exam
	Topic 9. Use of modern information technologies in the educational process.	2	8		2	2	90	8	Test / Exam
0	Topic 10. Introduction to testology.	2	6			2	0	8	Oral questioning / Exam
1	Topic 11. Databases in the work of a linguist.	2	8		2	2	0	8	Test / Exam

2	Topic 12. Introduction to quantitative linguistics.	2	8		2	2	0	8	Report with presentation / Exam
3	Topic 13. National text corpora.	2	8		2	2	0	8	Report with presentation / Exam
4	Topic 14. Machine translation of texts.	2	8		2	2	0	8	Oral questioning / Exam
5	Topic 15. Automated information retrieval systems	2	8		2	2	0	9	Test / Exam
6	Topic 16. Introduction to the Internet	2	8		2	2	0	9	Test / Exam
7	Topic 17. Overview of Internet resources on linguistics	2	9		2	2	0	9	Test / Exam
	Exam		26				1		
	Total: 252 (including contact hours – 18, final assessment – 26)		208		32	36	1	139	

CONTENT OF THE DISCIPLINE

Section 1. Introduction to Verbal Information Processing Technologies

Topic 1. Introduction.

Subject, content, goals, and objectives of the discipline. General information about information technologies. Automated workstations. Information, its properties and characteristics. Evolution of information technologies. Basic principles, methods, properties, and efficiency of information technology application. Automated workstation based on personal computers.

Topic 2. Information Resources.

Classification of information resources. Characteristics of different classes of information resources. Use of various types of information resources in the work of a linguist.

Topic 3. Sources and Providers of Information Resources.

Sources and providers of information resources for specialists. Providers of market information. Providers of educational information resources. Library collections. Archive collections. Sources of scientific information.

Section 2. Text Information Processing Technologies

Topic 4. Creating and editing text documents.

Entering, saving, and loading a text document. Window structure. Basic text operations. Character formatting. Text effects, borders, and shading. Paragraph formatting. Tabs. Lists. Columns. Sections. Breaks. Section and page formatting. Creating tables. Table formatting. Calculations and sorting in tables.

Topic 5. Creating and using templates and custom styles.

Using templates. Creating a style and style-based formatting. Using the style library for automatic document formatting. Working with graphic objects using the Drawing toolbar. Formatting and editing drawings. WordArt objects.

Topic 6. Automation of large document preparation.

AutoText and AutoCorrect, footnotes, headers and footers, inserting formulas, spell checking, hyphenation, document view modes, document structure and its modification, headings and their numbering, creating a table of contents and a table of figures. Fields. Electronic forms. Creating a form. Protecting forms. Creating and editing web pages. Building hyperlinks.

Section 3. Presentation creation technologies.

Topic 7. Creating presentations in MS PowerPoint.

Concept and purpose of computer presentations. Creating presentations using MS PowerPoint. Purpose and main features. Interface features, working modes (outline, sorter, slides, slide show). Concept of a presentation slide. Types of information on a slide. Creating a slide. Concept of a layout, its selection, customization, arrangement. Editing slides, inserting captions and pictures, background management, working with ready-made slide design templates. Slide management. Configuring the slide show mode. Built-in animation, slide transition effects. Hyperlinks. Action buttons. Template-based presentations. Presentation of graphic information based on user-created images. Integration with other software.

Section 4. Functional data processing.

Topic 8. Using the MS Excel spreadsheet processor for processing verbal information.

Functions in Excel. Classification of functions. Syntax, name, function arguments, and return value. Using the Function Wizard. Nested functions. Mathematical and statistical functions. Logical functions. Writing and applying logical expressions. Date and time functions. Date and time input and output formats. Arithmetic operations with dates. Text functions. Simple interest. Compound interest.

Section 5. Technologies for Creating Electronic Educational Resources.

Topic 9. Use of modern information technologies in the development of educational materials.

Basic concepts of developing educational content text. Creation of images, tables, hyperlinks. Use of form elements for developing educational tests.

Topic 10. Introduction to testology.

Emergence and development of the test as an assessment method. Basic concepts of testology: test, test item, testing. Basic forms of test items. Test item design. Principles of composing test items. Test development using modern technologies. Conducting testing and interpreting its results.

Section 6. Databases

Topic 11. Databases in the work of a linguist.

Classification of data models for a subject domain and overview of technologies for their study. Principles of organization. Fundamentals of the relational approach theory. Relational database management systems on personal computers. Technology for implementing professional domain tasks using database management systems (DBMS). Design, data entry, maintenance.

Section 7. Quantitative Linguistics.

Topic 12. Introduction to quantitative linguistics.

Subject of quantitative linguistics. Basic laws of quantitative linguistics. Quantitative methods. Applied aspects of quantitative linguistics. Logic, grammar, algorithms. Units of language and speech. Method of analogy in computational linguistics.

Topic 13. National text corpora.

Corpus linguistics as a science. Concept of a text corpus. Classification of corpora. Features of applying text corpora. National text corpora.

Section 8. Automated Translation.

Topic 14. Machine translation of texts.

Concept of phraseological machine translation of texts. Automation of dictionary compilation and maintenance. Automatic compilation of dictionaries of concept names with thesaurus control. Automatic compilation of dictionaries of concept names without thesaurus control. Automated dictionary service. Efficient computer organization of data dictionaries for text translation; Data dictionaries for sound recognition.

Section 9. Automated Information Retrieval Systems

Topic 15. Automated information retrieval systems.

Formalized models of data structures. Information retrieval in databases. Automation of document indexing, summarization (abstracting), and classification. Text information retrieval using formalized queries. Text information retrieval using queries formulated in natural languages.

Section 10. Internet Technologies in Linguistics.

Topic 16. Introduction to the Internet.

Structure of the Internet. Main information resources: teleconference systems; databases; file archive systems; WWW service; email; search engines; reference information resources.

Topic 17. Overview of Internet resources on linguistics.

Query language for effective search of linguistic information on the Internet; Use of Internet resources for machine translation. Application of neural networks in the preparation of educational resources.

REQUIREMENTS FOR DISCIPLINE ACHIEVEMENT

List of planned learning outcomes by discipline correlated with indicators of achievement

Competence	**Indicators of achievement**	**Discipline outcomes**
ПК -1 Is able to organize student activities aimed at the development of a general education program, including the use of e-learning, remote technologies and digital tools	ИДК $_{ПК1.1}$ Develops and implements educational programs with the help of modern digital technologies, using e-learning and remote technologies	Know: – The regulatory and legal foundations of distance learning technologies. Be able to: – Develop digital educational content (courses, tests, presentations); – Apply information technologies for diagnosing results. Master: – Tools for implementing information processes; – Digital etiquette: rules for safe and effective communication in the educational environment.
ПК-2 Is able to develop educational and methodological support of the learning process, including programs for the development of the educational organization in order to create a safe and comfortable educational environment	ИДК$_{ПК2.1}$.- - Proficient in forms and methods of teaching, including those that go beyond training sessions: project activities, out-of-class events	Know: – Psychological and pedagogical patterns of organizing a safe and comfortable environment. Be able to: – Conduct educational research and project activities; – Analyze and adjust the educational process based on the needs of the participants. Master: – Methods for implementing individualization of learning.
	ИДК $_{ПК2.2}$ Develops and applies modern psychological-pedagogical technologies based on knowledge of the laws of personality	Know: – Modern psychological and pedagogical technologies (game-based, interactive, ICT technologies, project-based). Be able to: – Design a safe and developing virtual

	development and behavior in real and virtual environments	environment. – Implement teaching methods aimed at personal development. Master: – Ways to optimize the educational process in the context of digit.
ПК-3 Demonstrates a strong command of ICT competencies	$ИДК_{пк3.1}$ Uses ICT to organize the educational process, communication and documentation	Know: – The main components of a personal computer; – The basics of working with operating systems; – The rules for using the Internet, searching for information, and the fundamentals of digital hygiene. Be able to: – Create interactive learning materials (presentations, tests, video materials); – Organize learning activities using interactive equipment. Master: – Skills in working with office software packages; – Skills in using platforms for distance education; – Methods of maintaining electronic documentation and databases.
	$ИДК_{ПК3.2}$ Possesses specialized software and digital resources according to the subject being taught	Know: – Types of specialized software, digital educational resources. Be able to: – Use digital tools for developing learning materials; – Conduct classes using ICT, apply testing and knowledge assessment technologies. Master: – Skills in creating digital content (presentations, video lessons, tests), working with interactive equipment; – Methods of digital communication with learners.

Разработчик:

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« 10 » марта 2026 г. Протокол № 7.

Зав. кафедрой _____ И. С. Шильникова

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