

**МИНОБРНАУКИ РОССИИ**

**Федеральное государственное автономное образовательное  
учреждение высшего образования "Пермский  
государственный национальный исследовательский  
университет"**

**Кафедра информационных систем и математических методов в экономике**

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Программа учебной практики  
**TRAINING PRACTICE IN IT IN ECONOMICS**  
Код УМК 97838

Утверждено  
Протокол №9  
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## **1. Вид практики, способ и форма проведения практики**

Вид практики **учебная**

Тип практики **практика по получению первичных профессиональных умений и навыков**

Способ проведения практики **стационарная, выездная**

Форма (формы) проведения практики **дискретная**

## **2. Место практики в структуре образовательной программы**

Учебная практика « Training Practice in IT in Economics » входит в обязательную часть Блока « Б.2 » образовательной программы по направлениям подготовки (специальностям):

Направление: **38.03.05** Бизнес-информатика

направленность Информационные системы и большие данные

### **Цель практики :**

The main objectives of the training practice are:

- consolidation, expansion and deepening of the theoretical knowledge received on the discipline "Algorithmization and Programming I", "Theoretical foundations of computer science" and other disciplines related to the application of information technology in business.
- providing the level of student's training in the field of technological processes organization;
- Acquiring practical skills in the use of information technologies in the process of independent work.

### **Задачи практики :**

The tasks and content of the training practice are as follows:

- acquisition of skills and abilities on the basis of knowledge obtained in the process of theoretical training;
- obtaining information about the use of computer methods and means of processing management information at the enterprise (or a specific service in which the student is doing practice);
- formation of skills and abilities to perform the work of analyzing the subject area and formalizing the results obtained;
- the acquisition by interns of the skills and abilities of professional behavior in the process of labor activity in the chosen direction of professional activity at the enterprise / institution / organization.

### **3. Перечень планируемых результатов обучения**

В результате прохождения практики **Training Practice in IT in Economics** у обучающегося должны быть сформированы следующие компетенции:

**38.03.05 Бизнес-информатика (направленность : Информационные системы и большие данные)**

**ОПК.1** Способен понимать закономерности развития экономической системы и ориентируясь на них предлагать обоснованные организационно-управленческие решения в рамках своей профессиональной деятельности

#### **Индикаторы**

**ОПК.1.5** Производит оценку вариантов управленческих и организационных решений на основе показателей экономической эффективности исходя из имеющейся информации

**ОПК.2** Способен понимать принципы работы современных информационно-коммуникационных технологий и использовать их для решения профессиональных задач с учетом требований информационной безопасности

#### **Индикаторы**

**ОПК.2.1** Демонстрирует базовые знания в области информационно-коммуникационных технологий

**ОПК.2.2** Ориентируясь на задачи профессиональной деятельности, обоснованно выбирает информационно-коммуникационные технологии и использует их в профессиональной деятельности с учетом требований информационной безопасности

**ОПК.4** Способен применять статистические и экономико-математические методы для обработки экономической информации и выявления закономерностей экономических процессов

#### **Индикаторы**

**ОПК.4.2** Применяет методы обобщения и группировки количественной информации и описания экономической ситуации с помощью статистических показателей

**ОПК.4.3** Устанавливает и изучает взаимосвязи между экономическими процессами и явлениями с помощью математических и статистических методов и моделей

**ПК.3** Способен к планированию и организации аналитических работ, в том числе, с использованием технологий больших данных

#### **Индикаторы**

**ПК.3.5** Распределяет роли и состав аналитических работ между участниками группы для анализа данных (в том числе, больших данных)

#### 4. Содержание и объем практики, формы отчетности

<b>Направление подготовки</b>	38.03.05 Бизнес-информатика (направленность: Информационные системы и большие данные)
<b>форма обучения</b>	очная
<b>№№ триместров, выделенных для прохождения практики</b>	11
<b>Объем практики (з.е.)</b>	3
<b>Объем практики (ак.час.)</b>	108
<b>Форма отчетности</b>	Экзамен (11 триместр)

#### Примерный график прохождения практики

Количество часов	Содержание работ	Место проведения
<b>Preparatory stage</b>		
12	The preparatory stage includes an organizational meeting, a safety briefing	Стационарная практика ПГНИУ Internship at PSU Выездная практика Организации, с которыми у ПГНИУ заключен договор  On-site practice Organizations with which PSU has an agreement
<b>Internship</b>		
64	Internship at PSNIU or at the base enterprise, collection, processing and analysis of the information received.	Стационарная практика ПГНИУ Internship at PSU Выездная практика Организации, с которыми у ПГНИУ заключен договор  On-site practice Organizations with which PSU has an agreement
<b>Task 1. Processing and analysis of economic data in software packages</b>		
12	Solving practical problems for the processing and analysis of economic data in statistical packages	Стационарная практика ПГНИУ Internship at PSU Выездная практика Организации, с которыми у ПГНИУ заключен договор

Количество часов	Содержание работ	Место проведения
		On-site practice Organizations with which PSU has an agreement
Task 2. Programming languages (PL) of high level. Solving economic problems		
14	Development of economic data processing algorithms	Стационарная практика ПГНИУ Internship at PSU Выездная практика Организации, с которыми у ПГНИУ заключен договор  On-site practice Organizations with which PSU has an agreement
Task 3. Design and implementation of visual forms. Solving economic problems		
16	Prototyping visual forms for processing economic data	Стационарная практика ПГНИУ Internship at PSU Выездная практика Организации, с которыми у ПГНИУ заключен договор  On-site practice Organizations with which PSU has an agreement
Task 4. Development of a database (field of economics and management)		
22	Application of the normalization procedure, software implementation in SQL	Стационарная практика ПГНИУ Internship at PSU Выездная практика Организации, с которыми у ПГНИУ заключен договор  On-site practice Organizations with which PSU has an agreement
Preparing a practice report		
20	Preparation of a practice report under the supervision of a supervisor	Стационарная практика ПГНИУ Internship at PSU Выездная практика Организации, с которыми у ПГНИУ заключен договор  On-site practice

Количество часов	Содержание работ	Место проведения
		Organizations with which PSU has an agreement
Protection of practice		
12	Public defense of the practice	Стационарная практика ПГНИУ Internship at PSU Выездная практика Организации, с которыми у ПГНИУ заключен договор  On-site practice Organizations with which PSU has an agreement

## **5. Перечень учебной литературы, необходимой для проведения практики**

### **Основная**

1. Economics of development/G. Malcolm [et al.].-3rd ed..-New York:W. W. Norton,1992, ISBN 0-393-96156-7.-635.-Bibliogr.: p. 591-617

### **Дополнительная**

1. Information Technology. Solutions for Business. Case studies from esprit.-Luxemburg:Office for official publications of the EC,1996, ISBN 92-827-8389-8.-454.

## **6. Перечень ресурсов сети «Интернет», требуемых для проведения практики**

Для проведения практики использование ресурсов сети «Интернет» не предусмотрено.

## **7. Перечень информационных технологий, используемых при проведении практики**

Образовательный процесс по практике **Training Practice in IT in Economics** предполагает использование следующего программного обеспечения и информационных справочных систем:

List of required licensed and (or) free software:

1. Spreadsheet processor,
2. Relational DBMS (MySQL, free software),
3. Business process modeling tools (free web client [www.draw.io](http://www.draw.io)),
4. Visual Studio 2022 development environment (free software),
5. XAMPP package with web server (free software).

При освоении материала и выполнения заданий по дисциплине рекомендуется использование материалов, размещенных в Личных кабинетах обучающихся ЕТИС ПГНИУ (**[student.psu.ru](http://student.psu.ru)**).

При организации дистанционной работы и проведении занятий в режиме онлайн могут использоваться:

система видеоконференцсвязи на основе платформы BigBlueButton (<https://bigbluebutton.org/>).

система LMS Moodle (<http://e-learn.psu.ru/>), которая поддерживает возможность использования текстовых материалов и презентаций, аудио- и видеоконтент, а так же тесты, проверяемые задания, задания для совместной работы.

система тестирования Indigo (<https://indigotech.ru/>).

## **8. Описание материально-технической базы, необходимой для проведения практики**

In the educational process, lectures require an audience equipped with presentation equipment (projector, screen, computer / laptop) with appropriate software, chalk (s) or marker board.

For laboratory studies, a computer class equipped with personal computers and appropriate software is required.

The composition of the equipment is defined in the Passport of the computer class.

For independent work, an audience is required, equipped with computer equipment with the ability to connect to the Internet, provided with access to the electronic information and educational environment of the university, as well as the premises of the Scientific Library of Perm State National Research University.

Current and intermediate certification, individual and group consultations - an audience equipped with presentation equipment (projector, screen, computer / laptop) with appropriate software, chalk (s) or marker board or an audience equipped with chalk (s) or marker board.

Помещения научной библиотеки ПГНИУ для обеспечения самостоятельной работы обучающихся:

1. Научно-библиографический отдел, корп.1, ауд. 142. Оборудован 3 персональными компьютера с доступом к локальной и глобальной компьютерным сетям.

2. Читальный зал гуманитарной литературы, корп. 2, ауд. 418. Оборудован 7 персональными компьютерами с доступом к локальной и глобальной компьютерным сетям.

3. Читальный зал естественной литературы, корп.6, ауд. 107а. Оборудован 5 персональными компьютерами с доступом к локальной и глобальной компьютерным сетям.

4. Отдел иностранной литературы, корп.2 ауд. 207. Оборудован 1 персональным компьютером с доступом к локальной и глобальной компьютерным сетям.

5. Библиотека юридического факультета, корп.9, ауд. 4. Оборудована 11 персональными компьютерами с доступом к локальной и глобальной компьютерным сетям.

6. Читальный зал географического факультета, корп.8, ауд. 419. Оборудован 6 персональными



компьютерами с доступом к локальной и глобальной компьютерным сетям.

Все компьютеры, установленные в помещениях научной библиотеки, оснащены следующим программным обеспечением:

Операционная система ALT Linux;

Офисный пакет Libreoffice.

Справочно-правовая система «КонсультантПлюс»

## **9. Методические указания для обучающихся по прохождению практики**

In accordance with the current regulatory documents, the form and type of reporting of students on the internship are determined by the higher educational institution.

As reporting materials on the passage of practices are:

1. Review-characteristic of the student's internship, compiled by the head of the practice from the enterprise, having the seal of the enterprise and the signature of the head. To compile the characteristics, data from observations of the student's activities during practice, the results of completing tasks, as well as conversations with the student are used. Feedback-characteristics is issued on the form (Appendix 5);

2. Report on the completion of the practice, drawn up according to the approved form.

Within the prescribed period (no later than three days after the end of the practice), the student draws up a written report in Microsoft Word format (handwritten reports are not accepted), drawn up in accordance with the guidelines, reflecting the degree of completion of the program, and submits it in a bound form along with others reporting documents to the head of practice from the institute.

All issued reporting documents on the practice are bound in the following sequence:

1 Title page;

2 Practice report;

4. Direction to practice;

4 Calendar plan;

5 Review-characteristic.

Requirements for the content and design of the report on the completion of training practice

The report on training practice on the basics of programming should include the following components.

1. Title page.

2. Direction to practice.

In the form "Referral to practice" it is necessary to fill in the columns: topic, task (list of works), organization (place of internship), start and end dates of the internship, duration of the internship, skills (acquired during the internship).

3. The text of the practice report is typed in Microsoft Word and printed on one side of a standard sheet of A-4 paper, Times New Roman font - regular, size 14 pt; line spacing - one and a half; left, top and bottom - 2.0 cm; right - 1.0 cm; paragraph - 1.25 cm. The volume of the report should be at least 10 pages for training practice (in Microsoft Word format in accordance with the requirements set out above);

Based on the specified volume of the text of the report, it should include the following main structural elements and meet the basic requirements for the content of the report and its structural elements:

Introduction:

- purpose, place, start date and duration of the practice;

- a list of the main works and tasks performed during the practice.

Main part:

- description of the organization of work in the process of practice;

- description of practical tasks solved by the student during the internship;

- When writing the main part of the report, it is mandatory to include the following sections of the report:

Use of legal documents in their activities;

Methods for processing information from various sources.

- a list of outstanding tasks and unfinished planned issues.

Conclusion:

- it is necessary to describe the skills and abilities acquired during the practice;
- to give proposals for improving and organizing the work of the enterprise;
- to draw individual conclusions about the practical significance of the conducted type of educational practice.

The report must be illustrated with tables, graphs, diagrams, completed forms, drawings.

The pages of the report are numbered in Arabic numerals, with continuous numbering throughout the text. The number is placed in the center of the bottom of the sheet (alignment from the center) without a dot at the end of the number.

Diagrams, drawings, tables and other illustrative material located on separate sheets are included in the general page numbering, but are not counted in the scope of work.

The title page is included in the overall page numbering, but the page number is not included on the title page.

Digital material should be presented in the form of tables. The table should be placed in the report immediately after the text in which it is mentioned for the first time, or on the next page. All tables should be referenced in the text of the report. Tables should be numbered with Arabic numerals in serial numbering within the entire text of the report. The number should be placed above the table on the left without a paragraph indent after the word "Table". Each table must have a heading that fits on the same line with its number separated by a dash.

Figures (drawings, graphs, diagrams, computer printouts, diagrams, photographs) should be placed in the work immediately after the text in which they are mentioned for the first time, or on the next page. Illustrations can be computer-generated, including color.

3. In the response-characteristics of the internship leader from the enterprise at the place of internship, it is necessary to assess the student's attitude to work (with the signature of the responsible person), put the date of completion of the internship and the round seal of the enterprise.

Online

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Features of the organization and conduct of practice for the disabled and persons with disabilities

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Practice for students with disabilities and disabilities (hereinafter referred to as HIA) is organized and conducted taking into account their educational needs.

Students with disabilities can practice both together with other students (in the study group) and individually (upon a personal application).

The choice of places of internship for the disabled and persons with disabilities is carried out taking into account the requirements of their accessibility for this category of students. When determining the place of internship for the disabled and persons with disabilities, the recommendations of the medical and social expertise, reflected in the individual rehabilitation program for the disabled person (if any), regarding the recommended conditions and types of work are taken into account. If necessary, for internship, special jobs are created in accordance with the nature of the violations, as well as taking into account the labor functions performed by students with disabilities, types of professional activities and the nature of work.

Students of this category can do internships in specialized organizations (at enterprises, institutions) determined for the study group in which they study, if this does not create difficulties for them in completing internships and mastering the internship program.

If there are necessary conditions for mastering the practice program and fulfilling an individual task (or the possibility of creating such conditions), the practice of students of this category can be carried out in the structural divisions of Perm State Research University.

When determining the place of practice for students from among the disabled and persons with disabilities, special attention is paid to labor safety and equipment (equipment) of the workplace. Jobs provided by an

enterprise (organization, institution) must (if possible) meet the following requirements:

&#61485; for the visually impaired, visually impaired: equipping a special workplace with general and local lighting, ensuring that the specified person can freely find his workplace and perform labor functions, video magnifiers, magnifiers;

&#61485; for the visually impaired-blind: equipping a special workplace with typhlotechnical landmarks and devices, with the possibility of using a large relief-contrast font and Braille, acoustic navigation aids that ensure that the specified person finds his workplace unhindered and performs work functions;

&#61485; for the hearing-impaired-hard of hearing: equipping (equipment) of a special workplace with sound-amplifying equipment, loud-speaking telephones;

&#61485; for the deaf and hearing impaired: equipping a special workplace with visual indicators that convert sound signals into light, speech signals into a text running line, for the specified person to easily find his workplace and perform work;

&#61485; for disabled people with impaired functions of the musculoskeletal system: equipment that ensures the implementation of ergonomic principles (the most convenient arrangement of elements that make up the workplace for the disabled person), mechanisms and devices that allow you to change the height and inclination of the working surface, the position of the seat of the working chair in height and inclination , the angle of inclination of the backrest of the working chair, the equipment with a special seat that provides compensation for the effort when standing up, special devices for the management and maintenance of this equipment.

## Фонды оценочных средств для проведения промежуточной аттестации

### Планируемые результаты обучения по практике для формирования компетенции. Индикаторы и критерии их оценивания

#### ОПК.2

**Способен понимать принципы работы современных информационно-коммуникационных технологий и использовать их для решения профессиональных задач с учетом требований информационной безопасности**

Компетенция (индикатор)	Планируемые результаты обучения	Критерии оценивания результатов обучения
<b>ОПК.2.1</b> Демонстрирует базовые знания в области информационно-коммуникационных технологий	Demonstrates basic knowledge of information and communication technologies (Demonstrates basic knowledge of information and communication technologies)	<p style="text-align: center;"><b>Неудовлетворительно</b></p> --exhibited to a student who does not know the general provisions of the main material, has not mastered the skills of working with software, makes inaccuracies in the main definitions, violates the sequence in the presentation of the material and has difficulty completing practical tasks <p style="text-align: center;"><b>Удовлетворительно</b></p> --exhibited to a student who knows the general provisions of the main material, but has not mastered its details, makes inaccuracies in definitions and has difficulty completing practical tasks <p style="text-align: center;"><b>Хорошо</b></p> --exhibited for a solid knowledge of the material, is able to use software and information technology to protect information in information systems, the correct application of theoretical information, provisions in solving practical problems and issues, possession of practical skills for solving problems <p style="text-align: center;"><b>Отлично</b></p> --the knowledge of a student who has deeply and firmly mastered the program material of a given topic, who exhaustively, consistently, competently and logically expounds it, is assessed; at the same time, the student does not find it difficult to answer the modified task, freely copes with tasks, questions and other types of application of knowledge, shows familiarity with educational literature, correctly substantiates the decisions made, possesses versatile skills and techniques for performing practical work on a computer
<b>ОПК.2.2</b>	Focusing on the tasks of	<p style="text-align: center;"><b>Неудовлетворительно</b></p>

<p>Ориентируясь на задачи профессиональной деятельности, обоснованно выбирает информационно-коммуникационные технологии и использует их в профессиональной деятельности с учетом требований информационной безопасности</p>	<p>professional activities, reasonably chooses information and communication technologies and uses them in professional activities, taking into account the requirements of information security)</p>	<p><b>Неудовлетворительно</b> -exhibited to a student who does not know the general provisions of the main material, has not mastered the skills of working with software, makes inaccuracies in the main definitions, violates the sequence in the presentation of the material and has difficulty completing practical tasks</p> <p><b>Удовлетворительно</b> -exhibited to a student who knows the general provisions of the main material, but has not mastered its details, makes inaccuracies in definitions and has difficulty completing practical tasks</p> <p><b>Хорошо</b> -exhibited for a solid knowledge of the material, is able to use software and information technology to protect information in information systems, the correct application of theoretical information, provisions in solving practical problems and issues, possession of practical skills for solving problems</p> <p><b>Отлично</b> -the knowledge of a student who has deeply and firmly mastered the program material of a given topic, who exhaustively, consistently, competently and logically expounds it, is assessed; at the same time, the student does not find it difficult to answer the modified task, freely copes with tasks, questions and other types of application of knowledge, shows familiarity with educational literature, correctly substantiates the decisions made, possesses versatile skills and techniques for performing practical work on a computer</p>
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#### ОПК.4

**Способен применять статистические и экономико-математические методы для обработки экономической информации и выявления закономерностей экономических процессов**

Компетенция (индикатор)	Планируемые результаты обучения	Критерии оценивания результатов обучения
<p><b>ОПК.4.2</b> Применяет методы обобщения и группировки количественной информации и</p>	<p>Applies methods of summarizing and grouping quantitative information and describing the economic situation with the help of statistical indicators</p>	<p><b>Неудовлетворительно</b> -exhibited to a student who does not know the general provisions of the main material, has not mastered the skills of working with software, makes inaccuracies in the main definitions, violates the sequence in the presentation of the</p>

<p>описания экономической ситуации с помощью статистических показателей</p>		<p><b>Неудовлетворительно</b> material and has difficulty completing practical tasks</p> <p><b>Удовлетворительно</b> -exhibited to a student who knows the general provisions of the main material, but has not mastered its details, makes inaccuracies in definitions and has difficulty completing practical tasks</p> <p><b>Хорошо</b> -exhibited for a solid knowledge of the material, is able to use software and information technology to protect information in information systems, the correct application of theoretical information, provisions in solving practical problems and issues, possession of practical skills for solving problems</p> <p><b>Отлично</b> -the knowledge of a student who has deeply and firmly mastered the program material of a given topic, who exhaustively, consistently, competently and logically expounds it, is assessed; at the same time, the student does not find it difficult to answer the modified task, freely copes with tasks, questions and other types of application of knowledge, shows familiarity with educational literature, correctly substantiates the decisions made, possesses versatile skills and techniques for performing practical work on a computer</p>
<p><b>ОПК.4.3</b> Устанавливает и изучает взаимосвязи между экономическими процессами и явлениями с помощью математических и статистических методов и моделей</p>	<p>Establishes and studies the relationship between economic processes and phenomena using mathematical and statistical methods and models</p>	<p><b>Неудовлетворительно</b> -exhibited to a student who does not know the general provisions of the main material, has not mastered the skills of working with software, makes inaccuracies in the main definitions, violates the sequence in the presentation of the material and has difficulty completing practical tasks</p> <p><b>Удовлетворительно</b> -exhibited to a student who knows the general provisions of the main material, but has not mastered its details, makes inaccuracies in definitions and has difficulty completing practical tasks</p> <p><b>Хорошо</b> -exhibited for a solid knowledge of the material, is able to use software and information technology to protect information in information</p>

		<p><b>Хорошо</b> systems, the correct application of theoretical information, provisions in solving practical problems and issues, possession of practical skills for solving problems</p> <p><b>Отлично</b> -the knowledge of a student who has deeply and firmly mastered the program material of a given topic, who exhaustively, consistently, competently and logically expounds it, is assessed; at the same time, the student does not find it difficult to answer the modified task, freely copes with tasks, questions and other types of application of knowledge, shows familiarity with educational literature, correctly substantiates the decisions made, possesses versatile skills and techniques for performing practical work on a computer</p>
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#### ОПК.1

**Способен понимать закономерности развития экономической системы и ориентируясь на них предлагать обоснованные организационно-управленческие решения в рамках своей профессиональной деятельности**

<b>Компетенция (индикатор)</b>	<b>Планируемые результаты обучения</b>	<b>Критерии оценивания результатов обучения</b>
<p><b>ОПК.1.5</b> Производит оценку вариантов управленческих и организационных решений на основе показателей экономической эффективности исходя из имеющейся информации</p>	<p>Evaluates options for managerial and organizational decisions based on economic efficiency indicators based on available information.</p>	<p><b>Неудовлетворительно</b> -Evaluates options for managerial and organizational decisions based on economic efficiency indicators based on available information.</p> <p><b>Удовлетворительно</b> -exhibited to a student who knows the general provisions of the main material, but has not mastered its details, makes inaccuracies in definitions and has difficulty completing practical tasks</p> <p><b>Хорошо</b> -exhibited for a solid knowledge of the material, is able to use software and information technology to protect information in information systems, the correct application of theoretical information, provisions in solving practical problems and issues, possession of practical skills for solving problems</p> <p><b>Отлично</b> -the knowledge of a student who has deeply and firmly mastered the program material of a given</p>

		<p><b>Отлично</b> topic, who exhaustively, consistently, competently and logically expounds it, is assessed; at the same time, the student does not find it difficult to answer the modified task, freely copes with tasks, questions and other types of application of knowledge, shows familiarity with educational literature, correctly substantiates the decisions made, possesses versatile skills and techniques for performing practical work on a computer</p>
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### ПК.3

**Способен к планированию и организации аналитических работ, в том числе, с использованием технологий больших данных**

Компетенция (индикатор)	Планируемые результаты обучения	Критерии оценивания результатов обучения
<p><b>ПК.3.5</b> Распределяет роли и состав аналитических работ между участниками группы для анализа данных (в том числе, больших данных)</p>	<p>Distributes the roles and composition of analytical work among the members of the group for data analysis (including big data))</p>	<p><b>Неудовлетворительно</b> -exhibited to a student who does not know the general provisions of the main material, has not mastered the skills of working with software, makes inaccuracies in the main definitions, violates the sequence in the presentation of the material and has difficulty completing practical tasks</p> <p><b>Удовлетворительно</b> -exhibited to a student who knows the general provisions of the main material, but has not mastered its details, makes inaccuracies in definitions and has difficulty completing practical tasks</p> <p><b>Хорошо</b> -exhibited for a solid knowledge of the material, is able to use software and information technology to protect information in information systems, the correct application of theoretical information, provisions in solving practical problems and issues, possession of practical skills for solving problems</p> <p><b>Отлично</b> -the knowledge of a student who has deeply and firmly mastered the program material of a given topic, who exhaustively, consistently, competently and logically expounds it, is assessed; at the same time, the student does not find it difficult to answer the modified task, freely copes with tasks, questions and other</p>



		<p style="text-align: center;"><b>Отлично</b></p> <p>types of application of knowledge, shows familiarity with educational literature, correctly substantiates the decisions made, possesses versatile skills and techniques for performing practical work on a computer</p>
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### Оценочные средства

**Вид мероприятия промежуточной аттестации :** Экзамен

**Способ проведения мероприятия промежуточной аттестации :** Письменное контрольное мероприятие

**Продолжительность проведения мероприятия промежуточной аттестации :**

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### Показатели оценивания

Reporting documents on educational practice were not provided to the head, or provided, but the student cannot answer the head's questions regarding the essence of the work done and the documents submitted.	<b>Неудовлетворительно</b>
Reporting documents on educational practice are prepared by the students and provided to the leader, but the student cannot answer all the questions of the leader regarding the essence of the practice.	<b>Удовлетворительно</b>
Reporting documents on educational practice are prepared by students and provided to the leader, the student can answer all the questions of the leader regarding the essence of the practice, but finds it difficult to argue conclusions and generalizations.	<b>Хорошо</b>
Reporting documents on educational practice are prepared by students and provided to the supervisor, the student easily answers all questions of the supervisor regarding the essence of the work performed in practice, gives examples, draws analogies, gives generalizations, and argues all conclusions.	<b>Отлично</b>