> УТВЕРЖДАЮ: Директор

оссе - H.H. Бельков «31» марта 2023 г.

ФОНД ОЦЕНОЧНЫХ СРЕДСТВ для проведения промежуточной аттестации по учебной дисциплине

ОГСЭ.03 ИНОСТРАННЫЙ ЯЗЫК В ПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ

Специальность 13.02.11 Техническая эксплуатация и обслуживание электрического и электромеханического оборудования (по отраслям)

(программа подготовки специалистов среднего звена)

Форма обучения: очная / заочная 2, 3, 4 курс – 3, 4, 5, 6, 7, 8 семестр / 1 курс – база 11 классов / 2 курс – база 9 классов

Молодежный 2023

1. ФОНД ОЦЕНОЧНЫХ СРЕДСТВ ДЛЯ ПРОМЕЖУТОЧНОЙ АТТЕСТАЦИИ

Фонд оценочных средств для промежуточной аттестации по дисциплине Иностранный язык в профессиональной деятельности включает:

- перечень компетенций с указанием этапов их формирования в процессе освоения образовательной программы;

- описание шкал оценивания;

- типовые контрольные задания или иные материалы, необходимые для оценки результатов обучения (промежуточной аттестации) по дисциплине, характеризующих этапы формирования компетенций и (или) для итогового контроля сформированности компетенций.

2. ПЕРЕЧЕНЬ КОМПЕТЕНЦИЙ С УКАЗАНИЕМ ЭТАПОВ ИХ ФОРМИРОВАНИЯ В ПРОЦЕССЕ ОСВОЕНИЯ ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЫ

Рабочая программа дисциплины Иностранный язык в профессиональной деятельности определяет перечень планируемых результатов обучения по дисциплине, соотнесенных с планируемыми результатами освоения образовательной программы.

Код	Наименование компетенции (планируемые результаты освоения ОП) Общие компетенции	Планируемые результаты обучения по дисциплине, характеризующие этапы формирования компетенции В области знания и понимания
OK 01	Выбирать способы решения задач профессиональной деятельности применительно к различным контекстам.	(A) Знать: лексический (1200-1400 лексических единиц) и
OK 02	Использовать современные средства поиска, анализа и интерпретации, информации и информационные технологии для выполнения задач профессиональной деятельности.	грамматический минимум, необходимый для чтения и перевода (со словарем) иностранных текстов профессиональной направленности.
ОК 04	Эффективно взаимодействовать и работать в коллективе и команде.	В области интеллектуальных навыков (В)
OK 05	Осуществлять устную и письменную коммуникацию на государственном языке Российской Федерации с учетом особенностей социального и культурного контекста.	Уметь: общаться (устно и письменно) на иностранном языке на профессиональные и повседневные темы; переводить (со
OK 09	Пользоваться профессиональной документацией на государственном и иностранном языках.	словарем) иностранные тексты профессиональной направленности; самостоятельно совершенствовать устную и письменную речь, пополнять словарный запас.

В рабочей программе дисциплины Иностранный язык в профессиональной деятельности ЭТАПЫ ФОРМИРОВАНИЯ КОМПЕТЕНЦИЙ определены тематическим планом.

3. ОПИСАНИЕ ШКАЛ ОЦЕНИВАНИЯ

При проведении промежуточной аттестации в колледже используются традиционные формы аттестации:

Форма промежуточной аттестации	Шкала оценивания
ЗАЧЕТ	"зачтено",
	"незачтено"
ЗАЧЕТ С ОЦЕНКОЙ	"отлично",
(дифференцированный зачет)	"хорошо",
	"удовлетворительно",
	"неудовлетворительно"

4. ТИПОВЫЕ КОНТРОЛЬНЫЕ ЗАДАНИЯ ИЛИ ИНЫЕ МАТЕРИАЛЫ, НЕОБХОДИМЫЕ ДЛЯ ОЦЕНКИ РЕЗУЛЬТАТОВ ОБУЧЕНИЯ (ПРОМЕЖУТОЧНОЙ АТТЕСТАЦИИ) ПО ДИСЦИПЛИНЕ, ХАРАКТЕРИЗУЮЩИХ ЭТАПЫ ФОРМИРОВАНИЯ КОМПЕТЕНЦИЙ И (ИЛИ) ДЛЯ ИТОГОВОГО КОНТРОЛЯ СФОРМИРОВАННОСТИ КОМПЕТЕНЦИИ

4.1. Примерный перечень вопросов к зачету для оценивания результатов обучения в виде ЗНАНИЙ (ОК 02, ОК 05).

III CEMECTP

Безличные и неопределенно-личные предложения. Побудительные предложения (Imperative Sentences). Страдательный залог (Passive Voice). Фразовые глаголы (Phrasal Verbs). Причастие первое (Participle I). Причастие второе (Participle II). Условные придаточные предложения реального и нереального действия (Conditional Clauses).

IV CEMECTP

Инфинитив (The Infinitive) Герундий (The Gerund). Сложное подлежащее (Complex Subject). Сложное дополнение (Complex Object). Прямая речь (Direct Speech). Косвенная речь (Indirect Speech). Коллокации (Collocations) - устойчивые словосочетания.

V CEMECTP

What is electricity? Что такое электричество? Туреs of current. Типы тока. Direct Current. Постоянный ток. Alternating current. Переменный ток Parallel and series circuits. Параллельные и последовательные цепи. VI CEMECTP Electric cells. Электрические элементы. What are resistors? What are capacitors?

VII CEMECTP What are transformers?

Substations as high-voltage electric system facilities. Electricity Measurement. Измерение электричества.

VIII CEMECTP

Innovations in electric power generation.

Alternative Energy Sources. Источники альтернативной энергии.

4.2. Примерный перечень простых практических контрольных заданий к зачету для

оценивания результатов обучения в виде УМЕНИЙ (ОК 01, ОК 02, ОК 04, ОК 05, ОК 09).

III CEMECTP

<u>1. Put the verbs in the Past Perfect Continuous.</u>

- 1. Sally _____ (type) this text for 3 hours before Mark came.
- 2. Anthony ______ (wait) for his airplane for 3 hours when its delay was announced.
- 3. I saw many huge puddles. _____ it____ (rain) hard?
- 4. Sam did not even realize what a hard time Molly _____ (have).
- 5. Rita _____ (train) for a year and she was very fit when her ex-boyfriend met her.
- 6. Rachel's husband _____ (fix) the car since early morning.
- 7. Paul and Molly _____ (talk) on the phone for an hour when the line broke.

2. Use the words to make sentences.

- 1. went / Kate / it / for five years / had / for that company / working / when / been / out of business.
- 2. all day / Mark / to sit down / wanted / he / because / had /standing / been / at work.
- 3. teaching / a year / Jack / had / than / he / for / been / more / before / at the university / left for Asia.
- 4. long / studying / How / moved / you / been / Japanese / before / had / you / to Tokyo?

3. Make up sentences.

1. The old lecturer began to speak up. After a few minutes the dean came in.

The old lecturer ______ for a few minutes when ______

2. After half an hour of waiting Larry realized that he had been mistaken about the address.

Larry ______ when _____. 3. My father-in-law went to America in 1943. Two years later, the war ended.

My father-in-law _______ when ______.

4.

4.1. Write the following numbers in words.

137	1,975	
34	112	
67	600	
2,458	843	

4.2. Write the following years in words.

1809	1977
1269	1572
2010	1773

4.3. Write the following fractions in words.		
2/3	4.52	
9.06	3/5	
87.231	0.98	

4.3.Write the following fractions in words.

IV CEMECTP

1. Fill in the gaps with Conditional Clauses:

- 1 'Where is my bank book?'
- 'If you.....in the drawer, you'll find it.'
- A had looked
- B look
- C looked

3 'Dad shouted at me today.' 'Well, if you.....

- the window, he wouldn't have shouted at you.'
- A didn't break
- B hadn't broken
- C don't break
- 5 'I'm going to a party tonight.'
- 'If I weren't ill, I.....with you.
- A come
- B will come
- C would come
- 7 'Have you seen Daniel recently?'
- 'No. If I have time, I.....him tomorrow.'
- A would visit
- B might visit
- C visit

9 'If you hadn't watched that film,

you.....nightmares.' 'You're right.'

- A wouldn't have had
- B won't have
- C don't have

2 'Can I go and play football, please, Mum?' 'If you.....your homework, you can go and play.'

- A finished
- B had finished
- C have finished
- 4 'When ice melts, it.....water.'
- 'Everyone knows that!'
- A becomes
- B will become
- C would become
- 6 'If I were rich, I.....around the world.' 'Perhaps you will one day.'
- A will sail
- B can sail
- C could sail
- 8 'Paul lost his watch.'
 - 'Well, if he had looked after it, he.....it.'
- A wouldn't lose
- B won't lose
- C wouldn't have lost
- 10 'I can't find my wallet.'
 - 'If I were you, I in my jacket pocket.'
- A would look
- B will look
- C am looking

2. Change the Active Voice into the Passive Voice:

EXAMPLE: Do they sell clothes in this shop? - Are clothes sold in this shop?

1. People spend a lot of money on food.	6. She tapped him on the hand with her pen.
2. People make cars from iron.	7. Liz showed me some holiday pictures.
3. I don't like people laughing at me.	8. He hasn't cut the grass yet.
4. We are reading a book now.	9. They will open the new sports center soon.
5. Is Sue washing the car?	10. They may not repair the car this week.

3. Add the sentences using the Complex Object:

1. The teacher said to the pupils: "Learn the rule." — The teacher wanted ...

2. "Be careful, or else you will spill the milk," said my mother to me. — My mother did not want...

- 3. "My daughter will go to a ballet school," said the woman. The woman wanted ...
- 4. The man said: "My son will study mathematics." -The man wanted ...
- 5. "Oh, father, buy me this toy, please," said the little boy. The little boy wanted ...

6. "Wait for me after school," said Ann to me. — Ann wanted ...

7. "Fix the shelf in the kitchen," my father said to me. — My father wanted ...

8. "It will be very good if you study English," said my mother to me. ---My mother wanted ...

9. "Bring me some water from the river, children," said our grandmother. -Our grandmother wanted ...

10. "Come to my birthday party," said Kate to her classmates --- Kate wanted ...

11. The biology teacher said to us: "Collect some insects in summer." —The biology teacher wanted ...

12. "Don't eat ice cream before dinner," said our mother to us. Our mother did not want...

4. Transform the Direct Speech into the Reported (Indirect) Speech:

Fred said: "I have invented a new computer program". Mary said: "I will help my sister." They told me: "We were really happy." She said: "I live in a big apartment." He told her: "I am going to the fish market." Betty said: "I found my passport." Mr. Ford said: "I don't like pork." Little Tim told his mother: "I am sleepy."

5. Transform the Reported Speech into the Direct Speech:

I asked him why he was tired. We wanted to know if Kate had broken the car. He asked if they could meet on Tuesday. I wondered how often she used the washing-machine. Mother wanted to know if we would invite him to the party.

V CEMECTP

I. Read the text

THE NATURE OF ELECTRICITY

Practical electricity is produced by small atomic particles known as electrons. It is the movement of these particles which produce the effects of heat and light.

The pressure that forces these atomic particles to move, the effects they encounter opposition and how these forces are controlled are some of the principles of electricity.

Accepted atomic theory states that all matter is electrical in structure. Any object is largely composed of a combination of positive and negative particles of electricity. Electric current will pass through a wire, a body, or along a stream of water. It can be established in some substances more readily than in others, that all matter is composed of electric particles despite some basic differences in materials. The science of electricity then must begin with a study of the structure of matter. Matter is defined as any substance which has mass (or weight) and occupies space. This definition should be broad enough to cover all physical objects in the universe. Wood, water, iron, and paper are some examples of matter. Energy is closely related to, but not to be confused with, matter. Energy does not have mass, and it does not occupy space. Heat and light are examples of energy.

The smallest particle of matter which can be recognized as an original substance was thought to be a unit called the atom. Recently scientists have found particles even smaller than atoms, but our theories are still based on the atom. The atom consists of a nucleus and a cloud of electrons. It is generally agreed that the electrons are small particles of electricity, which are negative in nature. These particles orbit the nucleus in much the same fashion that planets orbit a sun.

II. Guess the meaning of the following international words:

Electricity, electron, effect, structure, combination, material, mass, energy, atom, orbit

III. Give the English equivalents for the words below:

1) производить; 2) частица; 3) тепло и свет; 4) напряжение; 5) сила; 6) вещество; 7) положительный; 8) отрицательный; 9) электрический ток; 10) вес; 11) ядро

IV. Translate into Russian the words and expressions from the text:

1) atomic particle; 2) effects of heat and light; 3) encounter opposition; 4) principles of electricity; 5) composed (of); 6) pass through a wire; 7) structure of matter; 8) occupy space; 9) physical objects; 10) a cloud of electrons; 11) in the same fashion.

V. Complete the sentences using the text:

- 1. Electricity is produced by ...
- 2. The effects of heat and light are produced by ...
- 3. According to the accepted atomic theory all matter is ...
- 4. Any object is composed of ...
- 5. Matter is defined as ...
- 6. Energy must not be confused with ...
- 7. The atom consists of ...
- 8. The smallest particle of matter is ...
- 9. Most theories are based on ...
- 10. Electrons are ...

VI. Answer the questions:

1) What are the principles of electricity? 2) What must the science of electricity begin with? 3) Are there any differences between energy and matter? What are they? 4) What is recognized as an original substance now?

VII. Topics for discussion:

- 1. The nature of electricity;
- 2. The nature of matter;
- 3. Contents of atomic theory.

VI CEMECTP

I. Read the text

ELECTRIC CURRENT

The electric current is a quantity of electrons flowing in a circuit per second of time. The unit of measure for current is ampere. If one coulomb passes a point in a circuit per second then the current strength is 1 ampere. The symbol for current is I.

The current which flows along wires consists of moving electrons. The electrons move along the circuit because the e .m. f. drives them. The current is directly proportional to the e. m. f. In addition to traveling through solids, however, the electric current can flow through liquids as well and even through gases. In both cases it produces some most important effects to meet industrial requirements. Some liquids, such as melted metals for example, conduct current without any change to themselves. Others, called electrolytes, are found to change greatly when the current passes through them.

When the electrons flow in one direction only, the current is known to be d. c., that is, direct current. The simplest source of power for the direct current is a battery, for a battery pushes the electrons in the same direction all the time (i.e., from the negatively charged terminal to the positively charged terminal).

The letters a. c. stand for alternating current. The current under consideration flows first in one direction and then in the opposite one. The a. c. used for power and lighting purposes is assumed to go through 50 cycles in one second.

One of the great advantages of a. c. is the ease with which power at low voltage can be changed into an almost similar amount of power at high voltage and vice versa. Hence, on the one hand alternating voltage is increased when it is necessary for long-distance transmission and, on the other hand, one can decrease it to meet industrial requirements as well as to operate various devices at home.

Although there are numerous cases when d. c. is required, at least 90 per cent of electrical energy to be generated at present is a. c. In fact, it finds wide application for lighting, heating, industrial, and some other purposes.

II. Guess the meaning of the following international words:

electric, ampere, symbol, proportional, industrial, metal, electrolyte, battery, generate.

III. Give the English equivalents for the words and word combinations below:

а. 1) течь, протекать; 2) цепь, схема; 3) единица измерения; 4) провод; 5) электродвижущая сила; 6) твердое тело; 7) жидкость; 8) проводить (ток); 9) источник энергии; 10) постоянный ток; 11) переменный ток; 12) напряжение.

IV. Give Russian equivalents for the following:

b. 1) to meet industrial requirements; 2) melted metals; 3) to push in the same direction; 4) negatively (positively) charged terminal; 5) power and lightning purposes; 6) long-distance transmission; 7) to operate devices; 8) to find wide application.

V. Say whether these sentences are true or false:

1. The symbol for current is I.

- 2. The electric current can flow only through liquids.
- 3. The current can be of two types: direct current and alternating current.
- 4. The alternating current flows in one direction.
- 5. A battery is the simplest source of power for the direct current.
- 6. Direct current finds wider application than alternating current.
- 7. Electrolytes don't change greatly when current passes through them.

8. One of the great advantages of alternating current is the ease with which voltage can be changed.

VI. Fill in the blanks, using the words from the box:

direct current, solids, conduct, electric current, liquids, voltage, alternating current

.

- A quantity of moving electrons flowing in a circuit is the a) _____.
- The current can flow through b) _____ and c) _____
- Some liquids d) _____ current without any change to themselves.
- When the electrons flow in one direction only, the current is known to be e) _____.
- The current flowing first in one direction and then in the opposite one is f) _____.
- Such advantage of alternating current as alternating g) ______ finds wide industrial and household application.

VII. State the questions to the underlined words:

- 1. *Melted metals* conduct current without any change to themselves.
- 2. Alternating voltage can be changed to operate various devices at home.
- 3. A battery pushes the *electrons* in the same direction.
- 4. The alternating current is used for power and lightning purposes.
- 5. Alternating current accounts for 90 per cent of electrical energy generated now.

VIII. Say some sentences about the types of electric current and its properties

VII CEMECTP

I. Read the text

EFFECTS PRODUCED BY A CURRENT

The current flow is detected and measured by any of the effects that it produces. There are three important effects accompanying the motion of electric charges: the heating, the magnetic, and chemical effects, the latter is manifested under special conditions.

The production of heat is perhaps the most familiar among the principal effects of an electric current. The heating effect of the current is found to occur in the electric circuit itself. It is detected owing to an increase in the temperature of the circuit. This effect represents a continual transformation of electric energy into heat. For instance, the current which flows through the filament of an increasent lamp heats that filament to a high temperature.

The heat produced per second depends both upon the resistance of the conductor and upon the amount of current carried through it. The thinner the wire is, the greater the developed heat is. On the contrary, the larger the wire is, the more negligible the heat produced is. Heat is greatly desirable at times but at other times it represents a waste of useful energy. It is this waste that is generally called "heat loss" for it serves no useful purposes and decreases efficiency.

The heat developed in the electric circuit is of great practical importance for heating, lighting and other purposes. Owing to it people are provided with a large number of appliances, such as: electric lamps that light our homes, streets and factories, electrical heaters that are widely used to meet industrial requirements, and a hundred and one other necessary and irreplaceable things which have been serving mankind for so many years.

The electric current can manifest itself in some other way. It is the motion of the electric charges that produces the magnetic forces. A conductor of any kind carrying an electric current, a magnetic field is set up about that conductor.

This effect exists always whenever an electric current flows, although in many cases it is so weak that one neglects it in dealing with the circuit. An electric charge at rest does not manifest any magnetic effect. The use of such a machine as the electric motor has become possible owing to the electromagnetic effect.

The last effect to be considered is the chemical one. The chemical effect is known to occur when an electric current flows through a liquid. Thanks to it a metal can be transferred from one part of the liquid to another. It may also effect chemical changes in the part of the circuit comprising the liquid and the two electrodes which are found in this liquid. Any of the above mentioned effects may be used for detecting and measuring current.

II. Give the English equivalents for the following words:

- 1. выявлять, обнаруживать; 6. лампа накаливания;
- 2. измерять; 7. прибор;
- 3. заряд; 8. потеря энергии;
- 4. нить накала; 9. освещать;
- 5. тепловой эффект; 10. обнаруживаться, проявляться.

III. Guess the meaning of the following international words:

transformation, temperature, chemical, magnetic, special, practical, motor, electrode.

IV. Insert words and expressions:

- 1. The current flow is (выявляется и измеряется) by any of the effects that it produces.
- 2. There are three important effects accompanying the motion of (электрические заряды).

3. The current which flows through the (нить накала лампы накаливания) heats that filament to a high temperature.

- 4. Heat represents (потерю полезной энергии) at times.
- 5. Electric lamps (освещать) our homes, streets and factories.
- 6. The electric current can (проявлять) magnetic effect.

V. Choose the correct translation:

The heating effect of the current is found to occur in the electric circuit itself.

1. Установлено, что тепловой эффект электрического тока обнаруживается в самой электрической цепи.

2. Тепловой эффект электрического тока может появляться в самой электрической цепи.

3. Установлено, что тепловой эффект электрического тока должен обнаруживаться в самой электрической цепи.

Когда в любом проводнике появляется электрический ток, вокруг него возникает магнитное поле.

1. A conductor of any kind carrying an electric current, a magnetic field was set up about that conductor.

2. A conductor of any kind have been carrying an electric current, a magnetic field is set up about that conductor.

3. A conductor of any kind carrying an electric current, a magnetic field is set up about that conductor.

Последний эффект, который необходимо рассмотреть – химический эффект.

- 1. The last effect is considered to be the chemical one.
- 2. The last effect to be considered is the chemical one.
- 3. The last effect would be considered the chemical one.

Известно, что химический эффект возникает, когда электрический ток проходит через жидкость.

- 1. The chemical effect is known to occur when an electric current flows through a liquid.
- 2. The chemical effect is famous to occur when an electric current flows through a liquid.
- 3. The chemical effect may be known to occur when an electric current flows through a liquid.

Именно движение электрических зарядов порождает магнитные силы.

- 1. The motion of the electric charges produces the magnetic forces.
- 2. It is the motion of the electric charges that produces the magnetic forces.
- 3. The motion of the electric charges is certain to produce the magnetic forces.

VI. Answer the questions:

- 1. What effects does the current flow produce?
- 2. How is the heating effect detected?
- 3. What does the heat produced depend upon?
- 4. What is called "heat loss"?
- 5. How is the magnetic effect set up?
- 6. What is the main condition of the magnetic effect existence?
- 7. When does the chemical effect occur?

VII. Speak about the principal effects of an electric current, using the text and chart above

VIII CEMECTP

I. Read the text

ELECTRIC CURCUITS

The concepts of electric charge and potential are very important in the study of electric currents. When an extended conductor has different potentials at its ends, the free electrons of the conductor itself are caused to drift from one end to the other. The potential difference must be maintained by some electric source such as electrostatic generator or a battery or a direct current generator. The wire and the electric source together form an electric circuit, the electrons are drifting around it as long as the conducting path is maintained.

There are various kinds of electric circuits such as: open circuits, closed circuits, series circuits, parallel circuits and short circuits. To understand the difference between the following circuit connections is not difficult at all. If the circuit is broken or «opened» anywhere, the current is known to stop everywhere. The circuit is broken when an electric device is switched off. The path along which the electrons travel must be complete otherwise no electric power can be supplied from the source to the load. Thus the circuit is "closed" when an electric device is switched on.

When electrical devices are connected so that the current flows from one device to another, they are said «to be connected in series». Under such conditions the current flow is the same in all parts of the circuit as there is only a single path along which it may flow. The electrical bell circuit is considered to be a typical example of a series circuit. The "parallel" circuit provides two or more paths for the passage of current. The circuit is divided in such a way that part of the current flows through one path and part through another. The lamps in the houses are generally connected in parallel.

The "short" circuit is produced when the current can return to the source of supply without control. The short circuits often result from cable fault or wire fault. Under certain conditions the short circuit may cause fire because the current flows where it was not supposed to flow. If the current flow is too great a fuse is used as a safety device to stop the current flow.

II. Guess the meaning of the following international words:

concept, potential, electrostatic generator, aluminum, parallel, typical, control.

III. Give the English equivalents for the following words and word combinations:

- 1) электрические цепи,
- 2) электрический заряд,
- 3) проводник,
- 4) сопротивление,
- 5) движение электронов,
- 6) изолятор,
- 7) короткое замыкание,
- 8) энергия.

IV. Say whether these sentences are true or false:

1. When an extended conductor has the same potential at its ends, free electrons are drifting from one end to another.

- 2. The wire and the electric source together form an electric circuit.
- 3. A path of any material will allow current to exist.
- 4. Silver, copper and gold oppose very strongly.
- 5. The slighter the opposition is, the better the insulator is.
- 6. There is only one type of electric circuit.
- 7. We close the circuit when we switch on our electric device.

V. Complete the sentences using the text:

- 1. The potential difference must be maintained by ...
- 2. Materials that offer slight opposition are called ...
- 3. The best insulators are ...
- 4. There are various kinds of electric circuits such as ...
- 5. We "open" the circuit when ...
- 6. We "close" the circuit when ...

- 7. The "short" circuit is produced when ...
- 8. A fuse is ...

VI. Answer the questions:

- 1. What concepts are very important in study of electric current?
- 2. What forms an electric circuit?
- 3. What materials are the best conductors and insulators?
- 4. What kinds of electric circuits do you know?
- 5. How can we open and close the circuit?
- 6. When are electrical devices connected in series?
- 7. What is an example of a series circuit?
- 8. What can you say about «parallel» circuits?9. What does the short circuit often result from?

VII. Talk on the types of electric circuits

Разработчик:

Преподаватель первой квалификационной категории

(подпись)

Т. В. Амосова

ФОС обсужден на заседании ПЦК социально-экономических и естественнонаучных дисциплин

Протокол № 8 от «<u>29</u>» <u>марта</u> 2023 г.

Председатель ПЦК

(подпись)

_____ Е.А. Хуснудинова

СОГЛАСОВАНО:

Внешний эксперт: преподаватель высшей квалификационной категории ГБПОУИО «Иркутский авиационный техникум»

О.В. Жаворонкова

(подпись)