МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ
Федеральное государственное автономное образовательное учреждение
высшего образования
"Казанский (Приволжский) федеральный университет"
Отделение Высшая школа иностранных языков и перевода

УТВЕРЖДАЮ
Проректор
по образовательной деятельности КФУ
Проф. Таюрский Д.А.
_____
"___"_____20___ г.

Программа дисциплины

Перевод текстов в нефтегазодобывающей сфере Б1.В.ДВ.2

Направление подготовки: 45.03.02 - Лингвистика
Профиль подготовки: Перевод и переводоведение (английский и второй иностранный языки)
Квалификация выпускника: бакалавр
Форма обучения: очно-заочное
Язык обучения: русский

Автор(ы):
Латыпов Н.Р.
Рецензент(ы):
Сабирова Д.Р.

СОГЛАСОВАНО:
Заведующий(ая) кафедрой: Сабирова Д. Р.
Протокол заседания кафедры No ___ от "____" _____ 201__г
Учебно-методическая комиссия Института международных отношений (отделение Высшая школа иностранных языков и перевода):
Протокол заседания УМК No ____ от "____" _____ 201__г

Регистрационный No

Казань
2019

Содержание

Программу дисциплины разработал(а)(и) доцент, к.н. с 01.03.2019 Латыпов Н.Р. Кафедра европейских языков и культур отделение Высшая школа иностранных языков и перевода , Niyaz.Latypov@kpfu.ru

1. Цели освоения дисциплины

Целью курса 'Перевод текстов в нефтегазодобывающей сфере' на 4 курсе бакалавриата является развитие умений письменного перевода, навыков применения

переводческих трансформаций и выработка способности определять стратегию перевода в зависимости от стиля текста. Особое внимание уделяется формированию навыков перевода безэквивалентной

лексики и предпереводческому анализу. В конце данного курса студенты должны уметь определять доминанту перевода, уметь находить переводческие проблемы и решать их.

2. Место дисциплины в структуре основной образовательной программы высшего профессионального образования

Данная учебная дисциплина включена в раздел 'В.ДВ.2' дисциплины (модули) основной образовательной программы 45.03.02 Лингвистика и относится к базовой (общепрофессиональной) части. Осваивается на 4 курсе, 8 семестр.

Курс 'Перевод текстов в нефтегазодобывающей сфере' предполагает наличие сформированных умений чтения и письма на английском и русском

языках, что требует предварительного изучения таких дисциплин как 'Практический курс первого иностранного (английского) языка', всего цикла теоретических и практических

дисциплин лингвистики, 'Теория перевода', 'Практическая грамматика первого иностранного языка', 'Лингвострановедение Великобритании и США', 'Иностранный язык', 'Введение в

Поскольку целью данного курса является формирование профессиональных умений, необходимых в трудовой деятельности, то содержание курса предполагает работу с оригинальными текстами.

3. Компетенции обучающегося, формируемые в результате освоения дисциплины /модуля

В результате освоения дисциплины формируются следующие компетенции:

Шифр компетенции	Расшифровка приобретаемой компетенции
ПК-10 (профессиональные компетенции)	быть способным осуществлять письменный перевод с соблюдением норм лексической эквивалентности, соблюдением грамматических, синтаксических и стилистических норм
ПК-11 (профессиональные компетенции)	быть способным оформлять текст перевода в компьютерном текстовом редакторе
ПК-7 (профессиональные компетенции)	владеть методикой предпереводческого анализа текста, способствующей точному восприятию исходного высказывания
ПК-8 (профессиональные компетенции)	владеть методикой подготовки к выполнению перевода, включая поиск информации в справочной, специальной литературе и компьютерных сетях
ПК-9 (профессиональные компетенции)	владеть основными способами достижения эквивалентности в переводе и способностью применять основные приемы перевода

В результате освоения дисциплины студент:

1. должен знать:

- методику предпереводческого анализа текста, способствующей точному восприятию исходного высказывания;

- методику подготовки к выполнению перевода, включая поиск информации в справочной, специальной литературе и компьютерных сетях;

2. должен уметь:

- применять основные способы достижения эквивалентности в переводе и способностью применять основные приемы перевода;

- осуществлять письменный перевод с соблюдением норм лексической эквивалентности, соблюдением грамматических, синтаксических и стилистических норм;

- оформлять текст перевода в компьютерном текстовом редакторе;

3. должен владеть:

- современными образовательными и информационными технологиями для повышения уровня своей профессиональной квалификации и общей культуры;

- навыками осуществления поиска профессиональной информации в печатных и электронных источниках, включая электронные базы данных;

4. должен демонстрировать способность и готовность:

- использовать методику предпереводческого анализа текста, способствующей точному восприятию исходного высказывания;

- использовать методику подготовки к выполнению перевода, включая поиск информации в справочной, специальной литературе и компьютерных сетях;

- применять основные способы достижения эквивалентности в переводе и способностью применять основные приемы перевода;

- осуществлять письменный перевод с соблюдением норм лексической эквивалентности, соблюдением грамматических, синтаксических и стилистических норм;

- оформлять текст перевода в компьютерном текстовом редакторе;

- использовать современные образовательные и информационные технологии для повышения уровня своей профессиональной квалификации и общей культуры, самостоятельно осуществлять поиск профессиональной информации в печатных и электронных источниках, включая электронные базы данных;

4. Структура и содержание дисциплины/ модуля

Общая трудоемкость дисциплины составляет 2 зачетных(ые) единиц(ы) 72 часа(ов).

Форма промежуточного контроля дисциплины: зачет в 8 семестре.

Суммарно по дисциплине можно получить 100 баллов, из них текущая работа оценивается в 50 баллов, итоговая форма контроля - в 50 баллов. Минимальное количество для допуска к зачету 28 баллов.

86 баллов и более - "отлично" (отл.);

71-85 баллов - "хорошо" (хор.);

55-70 баллов - "удовлетворительно" (удов.);

54 балла и менее - "неудовлетворительно" (неуд.).

4.1 Структура и содержание аудиторной работы по дисциплине/ модулю

Тематический план дисциплины/модуля

N	Раздел Дисциплины/ Модуля	Семестр	Неделя семестра	Виды и часы аудиторной работы, их трудоемкость (в часах)			Текущие формы контроля
				Лекции	Практические занятия	Лабораторные работы	
1.	Тема 1. Введение в дисциплину. Природные ресурсы	8	1-2	0	2	0	Устный опрос
2.	Тема 2. Поиски и разведка месторождений нефти газа	8	3-4	0	4	0	Письменное домашнее задание
3.	Тема 3. Запасы и месторождения нефти и газа	8	5-6	0	4	0	Письменное домашнее задание
4.	Тема 4. Классификация скважин. Цикл строительства скважины	8	7-8	0	4	0	Контрольная работа
5.	Тема 5. Бурение на шельфе	8	9-10	0	4	0	Письменная работа
6.	Тема 6. Осложнения при работе скважин	8	11-12	0	4	0	Письменная работа
.	Тема . Итоговая форма контроля	8		0	0	0	Зачет
	Итого			0	22	0	

4.2 Содержание дисциплины

Тема 1. Введение в дисциплину. Природные ресурсы

практическое занятие (2 часа(ов)):

Oil has been used for lighting purposes for many thousands of years. In areas where oil is found in shallow reservoirs, seeps of crude oil or gas may naturally develop, and some oil could simply be collected from seepage or tar ponds. Historically, we know the tales of eternal fires where oil and gas seeps ignited and burned. One example is the site where the famous oracle of Delphi was built around 1,000 B.C. Written sources from 500 B.C. describe how the Chinese used natural gas to boil water. It was not until 1859 that "Colonel" Edwin Drake drilled the first successful oil well, with the sole purpose of finding oil. The Drake Well was located in the middle of quiet farm country in northwestern Pennsylvania, and sparked the international search for an industrial use for petroleum. These wells were shallow by modern standards, often less than 50 meters deep, but they produced large quantities of oil. In this picture of the Tarr Farm, Oil Creek Valley, the Phillips well on the right initially produced 4,000 barrels per day in October, 1861, and the Woodford well on the left came in at 1,500 barrels per day in July, 1862. The oil was collected in the wooden tank pictured in the foreground. As you will no doubt notice, there are many different-sized barrels in the background. At this time, barrel size had not been standardized, which made statements like "oil is selling at $5 per barrel" very confusing (today a barrel is 159 liters (see units on p. 141). But even in those days, overproduction was something to be avoided. When the "Empire well" was completed in September 1861, it produced 3,000 barrels per day, flooding the market, and the price of oil plummeted to 10 cents a barrel. In some ways, we see the same effect today. When new shale gas fields in the US are constrained by the capacity of the existing oil and gas pipeline network, it results in bottlenecks and low prices at the production site.

Тема 2. Поиски и разведка месторождений нефти газа

практическое занятие (4 часа(ов)):

The oil and gas industry facilities and systems are broadly defined, according to their use in the oil and gas industry production stream: Exploration. Includes prospecting, seismic and drilling activities that take place before the development of a field is finally decided. Upstream. Typically refers to all facilities for production and stabilization of oil and gas. The reservoir and drilling community often uses upstream for the wellhead, well, completion and reservoir only, and downstream of the wellhead as production or processing. Exploration and upstream/production together is referred to as E&P. Midstream. Broadly defined as gas treatment, LNG production and regasification plants, and oil and gas pipeline systems. Refining. Where oil and condensates are processed into marketable products with defined specifications such as gasoline, diesel or feedstock for the petrochemical industry. Refinery offsites such as tank storage and distribution terminals are included in this segment, or may be part of a separate distributions operation. Petrochemical These products are chemical products where the main feedstock is hydrocarbons. Examples are plastics, fertilizer and a wide range of industrial chemicals.

Тема 3. Запасы и месторождения нефти и газа

практическое занятие (4 часа(ов)):

Onshore production is economically viable from a few dozen barrels of oil a day and upward. Oil and gas is produced from several million wells worldwide. In particular, a gas gathering network can become very large, with production from thousands of wells, several hundred kilometers/miles apart, feeding through a gathering network into a processing plant. This picture shows a well, equipped with a sucker rod pump (donkey pump) often associated with onshore oil production. However, as we shall see later, there are many other ways of extracting oil from a non free- flowing well. For the smallest reservoirs, oil is simply collected in a holding tank and picked up at regular intervals by tanker truck or railcar to be processed at a refinery. Onshore wells in oil-rich areas are also high capacity wells producing thousands of barrels per day, connected to a 1,000,000 barrel or more per day GOSP.

Тема 4. Классификация скважин. Цикл строительства скважины

практическое занятие (4 часа(ов)):

Today, oil and gas is produced in almost every part of the world, from the small 100 barrels-a-day private wells to the large bore 4,000 barrels-a-day wells; in shallow 20 meter deep reservoirs to 3,000 meter deep wells in more than 2,000 meters of water; in $100,000 onshore wells and $10 billion offshore developments. Despite this range, many parts of the process are quite similar in principle. At the left side, we find the wellheads. They feed into production and test manifolds. In distributed production, this is called the gathering system. The remainder of the diagram is the actual process, often called the gas oil separation plant (GOSP). While there are oil- or gas-only installations, more often the well-stream will consist of a full range of hydrocarbons from gas (methane, butane, propane, etc.), condensates (medium density hydrocarbons) to crude oil. With this well flow, we also get a variety of unwanted components, such as water, carbon dioxide, salts, sulfur and sand. The purpose of the GOSP is to process the well flow into clean, marketable products: oil, natural gas or condensates. Also included are a number of utility systems, which are not part of the actual process but provide energy, water, air or some other utility to the plant.

Тема 5. Бурение на шельфе

практическое занятие (4 часа(ов)):

A whole range of different structures is used offshore, depending on size and water depth. In the last few years, we have seen pure sea bottom installations with multiphase piping to shore, and no offshore topside structure at all. Replacing outlying wellhead towers, deviation drilling is used to reach different parts of the reservoir from a few wellhead cluster locations. Some of the common offshore structures are: Shallow water complex, which is characterized by several independent platforms with different parts of the process and utilities linked with gangway bridges. Individual platforms include wellhead riser, processing, accommodations and power generation platforms. Typically found in water depths up to 100 meters. Gravity base consists of enormous concrete fixed structures placed on the bottom, typically with oil storage cells in a "skirt" that rests on the sea bottom. The large deck receives all parts of the process and utilities in large modules. Large fields at 100 to 500 meters of water depth were typical in the 1980s and 1990s. The concrete was poured at an onshore location, with enough air in the storage cells to keep the structure floating until tow-out and lowering onto the seabed. Compliant towers are much like fixed platforms. They consist of a narrow tower, attached to a foundation on the seafloor and extending up to the platform. This tower is flexible, as opposed to the relatively rigid legs of a fixed platform. Flexibility allows it to operate in much deeper water, as it can absorb much of the pressure exerted by the wind and sea. Compliant towers are used between 500 and 1,000 meters of water depth.

Тема 6. Осложнения при работе скважин

практическое занятие (4 часа(ов)):

After operating for some time, a well may become less productive or faulty due to residue buildup, sand erosion, corrosion or reservoir clogging. Well workover is the process of performing major maintenance on an oil or gas well. This might include replacement of the tubing, a cleanup or new completions, new perforations and various other maintenance works such as the installation of gas lift mandrels, new packing, etc. Through-tubing workover operation is work performed with special tools that do not require the time-consuming full workover procedure involving replacement or removal of tubing. Well maintenance without killing the well and performing full workover is time-saving and often called well ntervention. Various operations that are performed by lowering instruments or tools on a wire into the well are called wireline operations.

4.3 Структура и содержание самостоятельной работы дисциплины (модуля)

N	Раздел Дисциплины	Се-местр	Неде-ля семе стра	Виды самостоятельной работы студентов	Трудо-емкость (в часах)	Формы контроля самосто-ятельной работы
1.	Тема 1. Введение в дисциплину. Природные ресурсы	8	1-2	подготовка к устному опросу	8	Устный опрос

N	Раздел Дисциплины	Се-местр	Недe-ля семе стра	Виды самостоятельной работы студентов	Трудо-емкость (в часах)	Формы контроля самосто-ятельной работы
2.	Тема 2. Поиски и разведка месторождений нефти газа	8	3-4	подготовка домашнего задания	8	Письменное домашнее задание
3.	Тема 3. Запасы и месторождения нефти и газа	8	5-6	подготовка домашнего задания	8	Письменное домашнее задание
4.	Тема 4. Классификация скважин. Цикл строительства скважины	8	7-8	подготовка к контрольной работе	8	Контрольная работа
5.	Тема 5. Бурение на шельфе	8	9-10	подготовка к письменной работе	10	Письменная работа
6.	Тема 6. Осложнения при работе скважин	8	11-12	подготовка к контрольной работе	4	Контрольная работа
				подготовка к письменной работе	4	Письменная работа
	Итого				50	

5. Образовательные технологии, включая интерактивные формы обучения

Рекомендуемые образовательные технологии: практические занятия с применением компьютерных технологий (использование электронных и on-line словарей).

При проведении занятий рекомендуется использование активных и интерактивных форм занятий (перевод текстов, представляемых организациями, где студенты проходят производственную практику).

Самостоятельная работа студента, наряду с практическими аудиторными занятиями в группе выполняется при непосредственном / опосредованном контроле преподавателя.

6. Оценочные средства для текущего контроля успеваемости, промежуточной аттестации по итогам освоения дисциплины и учебно-методическое обеспечение самостоятельной работы студентов

Тема 1. Введение в дисциплину. Природные ресурсы

Устный опрос , примерные вопросы:

I. Translate the following text into the Russian language. We study our Earth for many reasons: to find water to drink or oil to run our cars or coal to heat our homes, to know where earthquakes will occur or to predict landslides or floods, and to try to understand our natural surroundings. Geology may be divided into physical geology and historical geology. Physical geology deals with the materials of the Earth, earth crust movements, the structure of the Earth and various processes and agencies, such as weather, wind, streams, glaciers, the sea, organisms, volcanoes, earthquakes, subterranean water, etc. Historical geology is the branch of geologic science that relates to the past history of the earth. Earth is not stable ? nothing on its surface is permanent. Thus to understand the world we live in, we must study Earth?s history. We study Earth?s history by studying the record of past events that are preserved in rocks. The layers of the rocks are the pages in our history book. Rock layers are also called strata and the science that treats of these layered rocks is referred to as stratigraphy. To tell the age of most layered rocks scientists study the fossils these rocks contain. Fossils are the remains of once-living organisms. Today the animals and plants that live in the ocean are very different from those that live on land and the animals and plants that live in one part of the ocean or on one part of the land are very different from those in other parts. Similarly, fossils, animals and plants from different environments are different. Scientists must study the fossil from a variety of environments to build a complete picture of the animals and plants that lived in the past. The science that studies fossil remains is called paleontology. II. Give English equivalents to the following Russian word combinations: по многим причинам; ожидать землетрясения; предсказывать оползни и наводнения; природное окружение (среда); постоянно изменяться; геологическая летопись событий; сохраняться в породах; ископаемые остатки когда-то живших организмов; отличаться от; аналогично; целостная картина. III. Give Russian equivalents to the following English word combinations: subterranean water; to predict earthquakes; to expect landslides; natural environments; different surroundings; permanent structures; the record of past events; layered rocks; rock strata; fossil remains; to be preserved; to be referred to as; to differ from; to relate to past history.

Тема 2. Поиски и разведка месторождений нефти газа

Письменное домашнее задание , примерные вопросы:

Translate the following text into the Russian language. Minerals are the basic naturally occurring inorganic homogeneous units having definite physical and chemical properties which are combined in various ways and under different conditions to form rocks. Most minerals consist of elements combined as chemical compounds although a few may occur as native elements, ? for example, gold, silver, copper, and carbon (diamond and graphite). Minerals form under many different conditions, but for each mineral there is a specific range of temperature, pressure, and other conditions under which it is stable. Stated in a different way, minerals are stable only in the environment in which they are formed. For example, olivine forms at depth; it commonly crystallizes from magma under relatively high temperatures and pressures. If olivine is exposed to the temperature, pressure, and humidity of the earth?s surface, it is no longer stable and the crystal structure disintegrates. If clay minerals which formed at the surface of the earth are deeply burred or subjected to heat and pressure, they change to micas which are stable under new conditions. A few minerals, such as quartz, are stable under a range of conditions. However, most minerals are not, and since conditions at specific places on the earth?s surface commonly change, minerals change too. Because of crustal movements, minerals which formed at the surface are commonly subjected to the conditions at depth, and minerals which formed at depth are commonly exposed at the surface. Consequently, change, not stability is the rule. II. Give English equivalents to the following Russian word combinations: встречающиеся в природе; однородные (гомогенные) единицы; различным образом; при различных условиях; хотя; несколько; особый диапазон температурных условий; иначе говоря; на глубине; при высокой температуре; на поверхности; подвергаться давлению и температуре; однако; так как; из-за; следовательно. III. Translate the following text into the Russian language. Oil has been used for lighting purposes for many thousands of years. In areas where oil is found in shallow reservoirs, seeps of crude oil or gas may naturally develop, and some oil could simply be collected from seepage or tar ponds. Historically, we know the tales of eternal fires where oil and gas seeps ignited and burned. One example is the site where the famous oracle of Delphi was built around 1,000 B.C. Written sources from 500 B.C. describe how the Chinese used natural gas to boil water. It was not until 1859 that "Colonel" Edwin Drake drilled the first successful oil well, with the sole purpose of finding oil. The Drake Well was located in the middle of quiet farm country in northwestern Pennsylvania, and sparked the international search for an industrial use for petroleum. These wells were shallow by modern standards, often less than 50 meters deep, but they produced large quantities of oil. In this picture of the Tarr Farm, Oil Creek Valley, the Phillips well on the right initially produced 4,000 barrels per day in October, 1861, and the Woodford well on the left came in at 1,500 barrels per day in July, 1862.

Тема 3. Запасы и месторождения нефти и газа

Письменное домашнее задание , примерные вопросы:

. Translate the following text into the Russian language. Reservoir and wellheads. There are three main types of conventional wells. The most common is an oil well with associated gas. Natural gas wells are drilled specifically for natural gas, and contain little or no oil. Condensate wells contain natural gas, as well as a liquid condensate. This condensate is a liquid hydrocarbon mixture that is often separated from the natural gas either at the wellhead, or during the processing of the natural gas. Depending on the well type, completion may differ slightly. It is important to remember that natural gas, being lighter than air, will naturally rise to the surface of a well. Consequently, lifting equipment and well treatment are not necessary in many natural gas and condensate wells, while for oil wells, many types of artificial lift may be installed, particularly as the reservoir pressure falls during years of production. There is no distinct transition from conventional to unconventional oil and gas production. Lower porosity (tighter reservoirs) and varying maturity create a range of shale oil and gas, tight gas, heavy oil, etc., that is simply an extension of the conventional domain. Crude oil is a complex mixture consisting of 200 or more different organic compounds, mostly alkanes (single bond hydrocarbons on the form CnH2n+2) and smaller fraction aromatics (six-ring molecules such as benzene C6H6). II. Translate the following text into the Russian language. Offshore A whole range of different structures is used offshore, depending on size and water depth. In the last few years, we have seen pure sea bottom installations with multiphase piping to shore, and no offshore topside structure at all. Replacing outlying wellhead towers, deviation drilling is used to reach different parts of the reservoir from a few wellhead cluster locations. Some of the common offshore structures are: Shallow water complex, which is characterized by several independent platforms with different parts of the process and utilities linked with gangway bridges. Individual platforms include wellhead riser, processing, accommodations and power generation platforms. Typically found in water depths up to 100 meters. Gravity base consists of enormous concrete fixed structures placed on the bottom, typically with oil storage cells in a "skirt" that rests on the sea bottom. The large deck receives all parts of the process and utilities in large modules. Large fields at 100 to 500 meters of water depth were typical in the 1980s and 1990s. The concrete was poured at an onshore location, with enough air in the storage cells to keep the structure floating until tow-out and lowering onto the seabed. Compliant towers are much like fixed platforms. They consist of a narrow tower, attached to a foundation on the seafloor and extending up to the platform. This tower is flexible, as opposed to the relatively rigid legs of a fixed platform. Flexibility allows it to operate in much deeper water, as it can absorb much of the pressure exerted by the wind and sea. Compliant towers are used between 500 and 1,000 meters of water depth. Floating production, where all topside systems are located on a floating structure with dry or subsea wells.

Тема 4. Классификация скважин. Цикл строительства скважины

Контрольная работа , примерные вопросы:

I. Translate the following text into the Russian language. Well workover, intervention and stimulation After operating for some time, a well may become less productive or faulty due to residue buildup, sand erosion, corrosion or reservoir clogging. Well workover is the process of performing major maintenance on an oil or gas well. This might include replacement of the tubing, a cleanup or new completions, new perforations and various other maintenance works such as the installation of gas lift mandrels, new packing, etc. Through-tubing workover operation is work performed with special tools that do not require the time-consuming full workover procedure involving replacement or removal of tubing. Well maintenance without killing the well and performing full workover is time-saving and often called well intervention. Various operations that are performed by lowering instruments or tools on a wire into the well are called wireline operations. Work on the reservoir such as chemical injection, acid treatment, heating, etc., is referred to as reservoir stimulation. Stimulation serves to correct various forms of structure damage and improve flow. Damage is a generic term for accumulation of particles and fluids that block fractures and pores and limit reservoir permeability. Acids, such as hydrochloric acid (HCL) are used to open up calcareous reservoirs and to treat accumulation of calcium carbonates in the reservoir structure around the well. Severa l hundred liters of acid (typically 15% solution in water) are pumped into the well under pressure to increase permeability of the formation. When the pressure is high enough to open the fractures, the process is called fracture acidizing. If the pressure is lower, it is called matrix acidizing. Hydraulic fracturing is an operation in which a specially blended liquid is pumped down a well and into a formation under pressure high enough to cause the formation to crack open, forming passages through which oil can flow into the well bore. Sand grains, aluminum pellets, walnut shells, glass beads, or similar materials (propping agents) are carried in suspension by this fluid into the fractures. When the pressure is released at the surface, the fractures partially close on the propping agents, leaving channels for oil to flow through to the well. The fracture channels may be up to 100 meters long. Hydraulic fracturing is an essential technology for unconventional shale gas and liquids extraction. Explosive fracturing uses explosives to fracture a formation. At the moment of detonation, the explosion furnishes a source of highpressure gas to force fluid into the formation. The rubble prevents fracture healing, making the use of propping agents unnecessary. Damage removal refers to other forms of removing formation damage, such as flushing out of drill fluids. Flexible coiled tubing can be wound around a large diameter drum and inserted or removed much quicker than tubing installed from rigid pipe segments. Well workover equipment including coiled tubing is often mounted on well workover rigs.

Тема 5. Бурение на шельфе

Письменная работа , примерные вопросы:

I. Translate the following text into the Russian language. Once the well has been drilled, it must be completed. Completing a well consists of a number of steps, such as installing the well casing, completion, installing the wellhead, and installing lifting equipment or treating the formation, if required. Installing the well casing is an important part of the drilling and completion process. Well casing consists of a series of metal tubes installed in the freshly drilled hole. Casing serves to strengthen the sides of the well hole, ensure that no oil or natural gas seeps out as it is brought to the surface, and keep other fluids or gases from seeping into the formation through the well. A good deal of planning is necessary to ensure that the right casing for each well is installed. Types of casing used depend on subsurface characteristics of the well, including the diameter of the well (which is dependent on the size of the drill bit used) and the pressures and temperatures experienced. In most wells, the diameter of the well hole decreases the deeper it is drilled, leading to a conical shape that must be taken into account when installing casing. The casing is normally cemented in place. There are five different types of well casing. They include: Conductor casing, which is usually no more than 20 to 50 feet (7-17 m) long, is installed before main drilling to prevent the top of the well from caving in and to help in the process of circulating the drilling fluid up from the bottom of the well. Surface casing is the next type of casing to be installed. It can be anywhere from 100 to 400 meters long, and is smaller in diameter to fit inside the conductor casing. Its primary purpose is to protect fresh water deposits near the surface of the well from contamination by leaking hydrocarbons or salt water from deeper underground. It also serves as a conduit for drilling mud returning to the surface and helps protect the drill hole from damage during drilling. Intermediate casing is usually the longest section of casing found in a well. Its primary purpose is to minimize the hazards associated with subsurface formations that may affect the well. These include abnormal underground pressure zones, underground shales and formations that might otherwise contaminate the well, such as underground salt water deposits. Liner strings are sometimes used instead of intermediate casing. Liner strings are usually just attached to the previous casing with ?hangers? instead of being cemented into place, and are thus less permanent. ?Production casing, alternatively called the ?oil string? or '?long string,? is installed last and is the deepest section of casing in a well. This is the casing that provides a conduit from the surface of the well to the petroleum-producing formation. The size of the production casing depends on a number of considerations, including the lifting equipment to be used, the number of completions required, and the possibility of deepening the well at a later date. For example, if it is expected that the well will be deepened later, then the production casing must be wide enough to allow the passage of a drill bit later on. It is also instrumental in preventing blow-outs, allowing the formation to be ?sealed? from the top should dangerous pressure levels be reached. Once the casing is installed, tubing is inserted inside the casing, from the opening well at the top to the formation at the bottom. The hydrocarbons that are extracted run up this tubing to the surface. The production casing is typically 5 to 28 cm (2 -11 in) with most production wells being 6 inches or more. Production depends on reservoir, bore, pressure, etc., and may be less than 100 barrels per day to several thousand barrels per day. (5,000 bpd is about 555 liters/minute). A packer is used between casing and tubing at the bottom of the well.

Тема 6. Осложнения при работе скважин

Контрольная работа , примерные вопросы:

Translate the following text into the Russian language. The facility uses subsea production wells. The typical high pressure (HP) wellhead at the bottom right, with its Christmas tree and choke, is located on the sea bed. A production riser (offshore) or gathering line (onshore) brings the well flow into the manifolds. As the reservoir is produced, wells may fall in pressure and become low pressure (LP) wells. This line may include several check valves. The choke, master and wing valves are relatively slow. Therefore, in the case of production shutdown, the pressure on the first sectioning valve closed will rise to the maximum wellhead pressure before these valves can close. The pipelines and risers are designed with this in mind. Short pipeline distances are not a problem, but longer distances may cause a multiphase well flow to separate and form severe slugs ? plugs of liquid with gas in between ? traveling in the pipeline. Severe slugging may upset the separation process and cause overpressure safety shutdowns. Slugging may also occur in the well as described earlier. Slugging can be controlled manually by adjusting the choke, or by automatic slug controls. Additionally, areas of heavy condensate may form in the pipelines. At high pressure, these plugs may freeze at normal sea temperature, e.g., if production is shut down or with long offsets. This can be prevented by injecting ethylene glycol. Glycol injection is not used at Njord. The Njord floater has topside chokes for subsea wells. The diagram also shows that kill fluid, essentially high specific gravity mud, can be injected into the well before the choke.

Письменная работа , примерные вопросы:

I. Translate the following text into the Russian language. Work on the reservoir such as chemical injection, acid treatment, heating, etc., is referred to as reservoir stimulation. Stimulation serves to correct various forms of structure damage and improve flow. Damage is a generic term for accumulation of particles and fluids that block fractures and pores and limit reservoir permeability. ? Acids, such as hydrochloric acid (HCL) are used to open up calcareous reservoirs and to treat accumulation of calcium carbonates in the reservoir structure around the well. Several hundred liters of acid (typically 15% solution in water) are pumped into the well under pressure to increase ermeability of the formation. When the pressure is high enough to open the fractures, the process is called fracture acidizing. If the pressure is lower, it is called matrix acidizing. ? Hydraulic fracturing is an operation in which a specially blended liquid is pumped down a well and into a formation under pressure high enough to cause the formation to crack open, forming assages through which oil can flow into the well bore. Sand grains, aluminum pellets, walnut shells, glass beads, or similar materials (propping agents) are carried in suspension by this fluid into the fractures. When the pressure is released at the surface, the fractures partially close on the propping agents, leaving channels for oil to flow through to the well. The fracture channels may be up to 100 meters long. Hydraulic fracturing is an essential technology for unconventional shale gas and liquids extraction. ? Explosive fracturing uses explosives to fracture a formation. At the moment of detonation, the explosion furnishes a source of highpressure gas to force fluid into the formation. The rubble prevents fracture healing, making the use of propping agents unnecessary. ? Damage removal refers to other forms of removing formation damage, such as flushing out of drill fluids.

Итоговая форма контроля

зачет (в 8 семестре)

Примерные вопросы к зачету:

1. Translate the following text from the English language into the Russian language. INTELLIGENT MULTILATERALS (MULTILATERAL WELL BORES OR HOLES)

2. Translate the following text from the English language into the Russian language. LONG-DISTANCE CRUDE OIL PIPELINES

3. Translate the following text from the English language into the Russian language. PETROLEUM AND NATURAL GAS RESOURCES

4. Translate the following text from the English language into the Russian language. FRACKING FOR NATURAL GAS

5. Translate the following text from the English language into the Russian language. FIELD OPERATIONS

6. Translate the following text from the English language into the Russian language. HOW DOES OPEC WORK?

7. Translate the following text from the English language into the Russian language. THE TALE ABOUT SEVEN SISTERS. HISTORY OF THE OIL INDUSTRY IN THE USA.

8. Translate the following text from the English language into the Russian language. WELL CASING. BASIC STRUCTURE AND FUNDAMENTALS OF OPERATION

9. Translate the following text from the English language into the Russian language. WELL WORKOVER, INTERVENTION AND STIMULATION

10. Translate the following text from the English language into the Russian language. WELLHEAD TYPOLOGY. SUBSEA WELLS. INJECTION

11. Translate the following text from the English language into the Russian language. OIL AND GAS SEPARATION. PRODICTION SEPARATORS

12. Translate the following text from the English language into the Russian language. GAS TREATMENT AND COMPRESSION. BASIC ELEMENTS

13. Translate the following text from the English language into the Russian language. MIDSTREAM FACILITIES. GAS PLANTS.

14. Translate the following text from the English language into the Russian language. REFINING. FRACTIONAL DISTILLATION. BASIC PRODUCTS

15. Translate the following text from the English language into the Russian language. BLENDING AND DISTRIBUTION

16. Translate the following text from the English language into the Russian language. PETROCHEMICAL PRODUCTS. AROMATICS. OLEFINS

17. Translate the following text from the English language into the Russian language. SYNTHESIS GAS AND ITS APPLICATION

18. Translate the following text from the English language into the Russian language. DIGITAL OILFIELD. ADVANCES OF THE INDUSTRY

19. UNCONVENTIONAL AND CONVENTIONAL RESOURCES AND ENVIRONMENT.

20. Translate the following text from the English language into the Russian language. EMISSIONS AND ENVIRONMENTAL EFFECTS

7.1. Основная литература:

1. Мисуно, Е. А. Письменный перевод специальных текстов [Электронный ресурс] : учеб. пособие / Е. А. Мисуно, И. В. Баценко, А. В. Вдовичев, С. А. Игнатова. - М. : ФлИнта, 2013. - 256 с. http://znanium.com/bookread2.php?book=462894

2. Нелюбин Л. Л. Введение в технику перевода (когнитивный теоретико-прагматичный аспект): Учебное пособие / Л.Л. Нелюбин. - М.: Флинта: Наука, 2009. - 216 с.: 60x88 1/16. (обложка) ISBN 978-5-9765-0788-3, 1000 экз. http://znanium.com/bookread.php?book=203065

7.2. Дополнительная литература:

1.Дидактика перевода. Хрестоматия и учебные задания [Электронный ресурс]: учеб. пособие / сост. В. Н. Базылев, В. Г. Красильникова; под ред. В. Н. Базылева. - 2-е изд., стер. - М., 2012. - 128 с http://znanium.com/bookread2.php?book=454812

2. Митягина В. А. Подготовка переводчика : коммуникативные и дидактические аспекты [Электронный ресурс] : колл. монография / Авт. колл.: В. А. Митягина и др. ; под общ. ред. В. А. Митягиной. - 2-е изд., стер. - М. :ФЛИНТА, 2013. - 304 с. http://znanium.com/bookread2.php?book=462958

7.3. Интернет-ресурсы:

Видео-презентация - https://www.youtube.com/watch?v=HLxItgUixYs&t=15s&index=10&list=PL1arCGY7sSJYoCzQ_IT9taw-w2

Онлайн энциклопедия - https://en.wikipedia.org/wiki/Petroleum

Электронный журнал - http://ogjrussia.com/

Электронный научно-популярный журнал - http://www.ogj.com/index.html
Электронный онлайн словарь - https://www.multitran.ru/c/m.exe?a=1&SHL=2&a=1&SHL=2

8. Материально-техническое обеспечение дисциплины(модуля)

Освоение дисциплины "Перевод текстов в нефтегазодобывающей сфере" предполагает использование следующего материально-технического обеспечения:

Мультимедийная аудитория, вместимостью более 60 человек. Мультимедийная аудитория состоит из интегрированных инженерных систем с единой системой управления, оснащенная современными средствами воспроизведения и визуализации любой видео и аудио информации, получения и передачи электронных документов. Типовая комплектация мультимедийной аудитории состоит из: мультимедийного проектора, автоматизированного проекционного экрана, акустической системы, а также интерактивной трибуны преподавателя, включающей тач-скрин монитор с диагональю не менее 22 дюймов, персональный компьютер (с техническими характеристиками не ниже Intel Core i3-2100, DDR3 4096Mb, 500Gb), конференц-микрофон, беспроводной микрофон, блок управления оборудованием, интерфейсы подключения: USB,audio, HDMI. Интерактивная трибуна преподавателя является ключевым элементом управления, объединяющим все устройства в единую систему, и служит полноценным рабочим местом преподавателя. Преподаватель имеет возможность легко управлять всей системой, не отходя от трибуны, что позволяет проводить лекции, практические занятия, презентации, вебинары, конференции и другие виды аудиторной нагрузки обучающихся в удобной и доступной для них форме с применением современных интерактивных средств обучения, в том числе с использованием в процессе обучения всех корпоративных ресурсов. Мультимедийная аудитория также оснащена широкополосным доступом в сеть интернет. Компьютерное оборудованием имеет соответствующее лицензионное программное обеспечение.

Лингафонный кабинет, представляющий собой универсальный лингафонно-программный комплекс на базе компьютерного класса, состоящий из рабочего места преподавателя (стол, стул, монитор, персональный компьютер с программным обеспечением SANAKO Study Tutor, головная гарнитура), и не менее 12 рабочих мест студентов (специальный стол, стул, монитор, персональный компьютер с программным обеспечением SANAKO Study Student, головная гарнитура), сетевого коммутатора для структурированной кабельной системы кабинета.

Лингафонный кабинет представляет собой комплекс мультимедийного оборудования и программного обеспечения для обучения иностранным языкам, включающий программное обеспечение управления классом и SANAKO Study 1200, которые дают возможность использования в учебном процессе интерактивные технологии обучения с использование современных мультимедийных средств, ресурсов Интернета.

Программный комплекс SANAKO Study 1200 дает возможность инновационного ведения учебного процесса, он предлагает широкий спектр видов деятельности (заданий), поддерживающих как практики слушания, так и тренинги речевой активности: практика чтения, прослушивание, следование образцу, обсуждение, круглый стол, использование Интернета, самообучение, тестирование. Преподаватель является центральной фигурой процесса обучения. Ему предоставляются инструменты управления классом. Он также может использовать многочисленные методы оценки достижений учащихся и следить за их динамикой. SANAKO Study 1200 предоставляет учащимся наилучшие возможности для выполнения речевых упражнений и заданий, основанных на текстах, аудио- и видеоматериалах. Вся аудитория может быть разделена на подгруппы. Это позволяет организовать отдельную траекторию обучения для каждой подгруппы. Учащиеся могут работать самостоятельно, в автономном режиме, при этом преподаватель может контролировать их действия. В состав программного комплекса SANAKO Study 1200 также входит модуль Examination Module - модуль создания и управления тестами для проверки конкретных навыков и способностей учащегося. Гибкость данного модуля позволяет преподавателям легко варьировать типы вопросов в тесте и редактировать существующие тесты.

Также в состав программного комплекса SANAKO Study 1200 также входит модуль обратной связи, с помощью которых можно в процессе занятия провести экспресс-опрос аудитории без подготовки большого теста, а также узнать мнение аудитории по какой-либо теме.

Каждый компьютер лингафонного класса имеет широкополосный доступ к сети Интернет, лицензионное программное обеспечение. Все универсальные лингафонно-программные комплексы подключены к корпоративной компьютерной сети КФУ и находятся в едином домене.

Учебно-методическая литература для данной дисциплины имеется в наличии в электронно-библиотечной системе "ZNANIUM.COM", доступ к которой предоставлен студентам. ЭБС "ZNANIUM.COM" содержит произведения крупнейших российских учёных, руководителей государственных органов, преподавателей ведущих вузов страны, высококвалифицированных специалистов в различных сферах бизнеса. Фонд библиотеки сформирован с учетом всех изменений образовательных стандартов и включает учебники, учебные пособия, УМК, монографии, авторефераты, диссертации, энциклопедии, словари и справочники, законодательно-нормативные документы, специальные периодические издания и издания, выпускаемые издательствами вузов. В настоящее время ЭБС ZNANIUM.COM соответствует всем требованиям федеральных государственных образовательных стандартов высшего профессионального образования (ФГОС ВПО) нового поколения.

Аудитория, оснащенная соответствующим мультимедийным оборудованием и имеющая выход в сеть Интернет

Программа составлена в соответствии с требованиями ФГОС ВПО и учебным планом по направлению 45.03.02 "Лингвистика" и профилю подготовки Перевод и переводоведение (английский и второй иностранный языки) .

Автор(ы):
Латыпов Н.Р. _____
"__" _____ 201 __ г.

Рецензент(ы):
Сабирова Д.Р. _____
"__" _____ 201 __ г.