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ФИО: Ястребов Олег Александрович
Должность: Ректор
Дата подписания: 23.05.2023 12:25:55
Уникальный программный ключ:
ca953a0120d891083f939673078ef1a989dae18a

**Федеральное государственное автономное образовательное учреждение высшего образования
«Российский университет дружбы народов имени Патриса Лумумбы»**

Институт Экологии

(наименование основного учебного подразделения (ОУП)-разработчика ОП ВО)

РАБОЧАЯ ПРОГРАММА ДИСЦИПЛИНЫ

**Иностранный язык
(факультатив)**

(наименование дисциплины/модуля)

Рекомендована МСЧН для направления подготовки/специальности:

05.04.06 Экология и природопользование

(код и наименование направления подготовки/специальности)

Освоение дисциплины ведется в рамках реализации основной профессиональной образовательной программы высшего образования (ОП ВО):

Управление природопользованием (совместно с Северо-восточным педагогическим университетом (УШОС))

(наименование (профиль/специализация) ОП ВО)

2023 г.

1. ЦЕЛЬ ОСВОЕНИЯ ДИСЦИПЛИНЫ

Целью освоения дисциплины «Иностранный язык (факультатив)» в рамках второй степени высшего профессионального образования (уровень магистратуры) является формирование и овладение студентами необходимым и достаточным уровнем письменной и устной коммуникативной компетенции для решения коммуникативных задач в различных областях академической и профессиональной деятельности в условиях межкультурного взаимодействия.

2. ТРЕБОВАНИЯ К РЕЗУЛЬТАТАМ ОСВОЕНИЯ ДИСЦИПЛИНЫ

Освоение дисциплины «Иностранный язык (факультатив)» направлено на формирование у обучающихся следующих компетенций (частей компетенций):

Таблица 2.1. Перечень компетенций, формируемых у обучающихся при освоении дисциплины (результаты освоения дисциплины)

Шифр	Компетенция	Индикаторы достижения компетенции (в рамках данной дисциплины)
УК-4	Способен применять современные коммуникативные технологии, в том числе на иностранном(ых) языке(ах), для академического и профессионального взаимодействия	УК-4.1 Умеет устанавливать контакты и организовывать общение в соответствии с потребностями совместной деятельности, используя современные коммуникационные технологии
		УК-4.2 Знает основы деловой документации и использует профессиональную лексику на иностранном и русском языках
		УК-4.3 способен организовать обсуждение результатов и представлять результаты исследовательской и проектной деятельности на различных публичных мероприятиях на русском или иностранном языке, выбирая наиболее подходящий формат.

3. МЕСТО ДИСЦИПЛИНЫ В СТРУКТУРЕ ОП ВО

Дисциплина «Иностранный язык (факультатив)» относится к вариативной части блока ФТД.В.02.

В рамках ОП ВО обучающиеся также осваивают другие дисциплины и/или практики, способствующие достижению запланированных результатов освоения дисциплины «Иностранный язык (факультатив)».

Таблица 3.1. Перечень компонентов ОП ВО, способствующих достижению запланированных результатов освоения дисциплины

Шифр	Наименование компетенции	Параллельные дисциплины / модули, практики*	Последующие дисциплины/модули, практики*
УК-4 ФГОС	УК-4. Способен применять современные коммуникативные технологии, в том числе на	Профессиональный иностранный язык	Иностранный язык (аспирантура)

Шифр	Наименование компетенции	Параллельные дисциплины / модули, практики*	Последующие дисциплины/модули, практики*
	иностранном(ых) языке(ах), для академического и профессионального взаимодействия		

4. ОБЪЕМ ДИСЦИПЛИНЫ И ВИДЫ УЧЕБНОЙ РАБОТЫ

Общая трудоемкость дисциплины «Иностранный язык (факультатив)» составляет 62 ак.ч.

Таблица 4.1. Виды учебной работы по периодам освоения ОП ВО для **ОЧНОЙ** формы обучения

Вид учебной работы	ВСЕГО, ак.ч.	Семестр(-ы)			
		2	3		
<i>Контактная работа, ак.ч.</i>	62	28	34		
в том числе:					
Лекции (ЛК)					
Лабораторные работы (ЛР)					
Практические/семинарские занятия (СЗ)	62	28	34		
<i>Самостоятельная работа обучающихся, ак.ч.</i>					
<i>Контроль (экзамен/зачет с оценкой), ак.ч.</i>					
Общая трудоемкость дисциплины	ак.ч.	62	28	34	
	зач.ед.				

5. СОДЕРЖАНИЕ ДИСЦИПЛИНЫ

Таблица 5.1. Содержание дисциплины (модуля) по видам учебной работы

Название разделов дисциплины	Краткое содержание разделов (тем) дисциплины	Вид учебной работы*
Аннотирование, реферирование и составление обзоров научных текстов	Основы компрессии научного текста. Основные принципы и задачи реферирования. Типы рефератов. Составление сводных и обзорных рефератов по научной тематике. Основные принципы и задачи аннотирования. Составление описательных и реферативных аннотаций. Составление аналитических обзоров иноязычной научной литературы по специальности	СЗ
Перевод научной литературы	Научный стиль. Научный перевод. Проявления интерференции в научной речи на уровне перевода. Специфика перевода научных терминов, единиц измерения, формул, графиков, имен собственных, географических названий, названий организаций. Пути достижения адекватности и эквивалентности при переводе научной литературы. Использование компьютерных технологий в переводе. Письменный перевод, устный перевод с листа (с	СЗ

	подготовкой) научных статей с иностранного языка на русский.	
Написание и презентация научной работы	<p>Научный текст. Типы научных текстов, их структура, параграфирование, членение на абзацы.</p> <p>Стратификация лексики научной литературы. Терминология и другие показатели научного стиля. Терминология. Термин в языке науки. Терминосистемы. Классы терминов.</p> <p>Особенности функционирования в научных текстах категорий частей речи иностранного языка в сравнении с русским. Особенности пунктуации. Средства связи текста, выражающие последовательность мыслей, пояснение, уточнение или аргументацию мысли; противительно-ограничительные отношения; итоговое значение. Союзы и сложные обороты и соответствующие им союзы в русском языке. Синтаксис научной речи. Оформление письменной работы. Правила цитирования, оформления сносок, правила составления библиографии.</p> <p>Научно-исследовательская работа магистранта (сообщение, доклад с презентацией, тезисы/научная статья по теме магистерской диссертации): правила построения, написания и презентации. Структурно-композиционные особенности представления доклада на защите квалификационной работы магистранта.</p>	СЗ
Профессионально-деловое общение	<p>Межкультурная коммуникация и этикет в профессионально-деловой сфере. Деловой этикет. Деловой протокол. Этикет в переговорном процессе. Фазы переговорного процесса. Сферы устного делового общения: встречи, переговоры, прием делегаций, беседа с клиентами, телефонные переговоры. Нормы этикета в устном деловом общении. Вербальные нормы этикета и формулы речевого этикета, принятые при приветствии, знакомстве с работодателем (партнером на переговорах и т.п.), приеме на работу, встрече делегации, формулировке темы беседы (переговоров), представлении участников деловой беседы, переговоров, изложении структуры контракта (договора, другой документации).</p> <p>Этикет в деловой переписке. Фразеология в языке письменного профессионально-делового общения, речевые образцы, клише, формулы вежливости. Типы деловых писем, документов. Трудоустройство. Резюме. Деловые письма (запрос информации, ответ на запрос информации). Деловое общение по телефону.</p>	СЗ

* - заполняется только по **ОЧНОЙ** форме обучения: ЛК – лекции; ЛР – лабораторные работы; СЗ – семинарские занятия.

6. МАТЕРИАЛЬНО-ТЕХНИЧЕСКОЕ ОБЕСПЕЧЕНИЕ ДИСЦИПЛИНЫ

Таблица 6.1. Материально-техническое обеспечение дисциплины

Тип аудитории	Оснащение аудитории	Специализированное учебное/лабораторное оборудование, ПО и материалы для освоения дисциплины (при необходимости)
Семинарская	Для проведения практических занятий используются учебные аудитории, оснащенные мультимедийной техникой, компьютерные классы института экологии РУДН с выходом в интернет.	Мультимедийное оборудование, интернет, компьютеры с доступом в ЭИОС
Для самостоятельной работы обучающихся	Аудитория для самостоятельной работы обучающихся (может использоваться для проведения семинарских занятий и консультаций), оснащенная комплектом специализированной мебели и компьютерами с доступом в ЭИОС.	Мультимедийное оборудование, интернет компьютеры с доступом в ЭИОС

* - аудитория для самостоятельной работы обучающихся указывается **ОБЯЗАТЕЛЬНО!**

7. УЧЕБНО-МЕТОДИЧЕСКОЕ И ИНФОРМАЦИОННОЕ ОБЕСПЕЧЕНИЕ ДИСЦИПЛИНЫ

Основная литература:

1. Валеева, Н.Г. Введение в теорию и практику перевода [Электронный ресурс] : Учебник / Н.Г. Валеева. – 3-е изд., испр. и доп. ; Электронные текстовые данные. – М. : Изд-во РУДН, 2018. – 152 с.
2. Валеева, Н. Г., Липатова, Н. А., Руднева, М. А., Уланова, К. Л. Деловое общение : Учебное пособие / Н. Г. Валеева, Н. А. Липатова, М. А. Руднева, К. Л. Уланова. – Москва : Российский университет дружбы народов (РУДН), 2022. – 97 с. – ISBN 978-5-209-11586-1.
3. Руднева, М. А. Практическое руководство по написанию научного текста / М. А. Руднева, Р. Фаизи. – Москва : Российский университет дружбы народов (РУДН), 2021. – 144 с. – ISBN 978-5-209-10905-1.
4. Murphy, R. English Grammar in Use: A self-study reference and practice book for elementary learners of English with answers / R. Murphy. – Fourth edition ; Книга на английском языке. – Cambridge: Cambridge University Press, 2015. – 319 p.
5. McCarthy, M. Academy Vocabulary in Use: Vocabulary reference and practice : self-study and classroom use / M. McCarthy, F. O'Dell. – Second Ed. ; Книга на английском языке. – Cambridge : Cambridge University Press, 2016. – 173 p. : il. – ISBN 978-1-107-59166-0 : 1580.70.
6. Evans, V., Dooley, J., Rodgers, K. Environmental Engineering (Career Paths). Book 1, 2, 3 / V. Evans, J. Dooley, K. Rodgers. - Книга на английском языке. – Newbury : Express Publishing, 2017. – 38, 40, 41 p.

7. *Hanson, A., Dooley, J. Civil Engineering (Career Paths). Book 1, 2, 3 / A. Hanson, J. Dooley.* – книга на английском языке. – Newbury : Express Publishing, 2018. – 38, 40, 41 p.
8. *Валеева, Н. Г. Practical grammar / Н. Г. Валеева, Н. А. Липатова, К. Л. Уланова.* – Москва : Общество с ограниченной ответственностью "Издательство "Мир науки", 2021. – 85 с. – ISBN 978-5-6046186-9-1.

Дополнительная литература:

1. *Wallwork A. English for Presentations at International Conferences, Second Edition* [Электронный ресурс], 2016.
2. *Микова С.С. Перевод языка делового общения* [Текст/электронный ресурс] – М.: Изд-во РУДН, 2015. – 225 с.
3. *Боброва С.Е. Английский язык – русский язык. Теория и практика перевода* [Электронный ресурс]: Проверочные работы и материалы для семинарских занятий. – М.: Изд-во РУДН, 2015. – 42 с.
4. *Быкова И.А. Теория перевода (когнитивно-прагматический аспект)* [Текст/электронный ресурс]: Учебник / И.А. Быкова. - 1-е изд., доп. ; Электронные текстовые данные. - М.: Изд-во РУДН, 2015. - 118 с.
5. *Липатова Н.А. Времена английского глагола. Тесты по грамматике = English verb. Test File* [Текст/электронный ресурс] : Учебно-методическое пособие: В 1-х ч. Ч.1 / Н.А. Липатова, К.Л. Уланова; Под ред. Н.Г. Валеевой. - Электронные текстовые данные. - М.: Изд-во РУДН, 2015. - 31 с.
6. *Малых Е.А. Пособие по научному стилю речи. Английский язык* [Электронный ресурс]: Учебно-методическое пособие. – М.: Изд-во РУДН. 2015.
7. *Попова Е.Н. Улучшаем навыки чтения* [Электронный ресурс] = Improve Your Reading Skills : Учебно-методическое пособие / Е.Н. Попова, С.Б. Томашевич. - Электронные текстовые данные. – М.: Изд-во РУДН, 2015. - 51 с.
8. *Попова Е.Н. Читаем, переводим, обсуждаем* [Электронный ресурс] = Read, Translate and Discuss : Учебно-методическое пособие / Е.Н. Попова. - Электронные текстовые данные. - М.: Изд-во РУДН, 2015. - 51 с.
9. *Серова Л.К. Реферирование* [Текст/электронный ресурс]: Учебно-методическое пособие для студентов технических специальностей. – М.: Изд-во РУДН, 2017. – 68 с.

Ресурсы информационно-телекоммуникационной сети «Интернет»:

1. ЭБС РУДН и сторонние ЭБС, к которым студенты университета имеют доступ на основании заключенных договоров:

- Электронно-библиотечная система РУДН – ЭБС РУДН
<https://lib.rudn.ru/MegaPro/Web>

- ЭБС «Университетская библиотека онлайн» <https://www.biblioclub.ru>

- ЭБС Юрайт <https://www.biblio-online.ru>

- ЭБС «Консультант студента» www.studentlibrary.ru

- ЭБС «Лань» <https://e.lanbook.com/>

- ЭБС «Троицкий мост»

2. Базы данных и поисковые системы:

- электронный фонд правовой и нормативно-технической документации
<https://docs.cntd.ru/>

- поисковая система Яндекс <https://www.yandex.ru/>

- поисковая система Google <https://www.google.ru/>

- реферативная база данных SCOPUS <https://www.elsevierscience.ru/products/scopus/>
<https://www.sciencedaily.com/>

- <https://www.newscientist.com/>

- <https://www.greenpeace.org/global/>
- <https://www.multitrans.com/>
- <https://insideecology.com/>
- <https://ed.ted.com/>

Учебно-методические материалы для самостоятельной работы обучающихся при освоении дисциплины/модуля*:

1. Онлайн курс «Иностранный язык (факультатив)» в системе ТУИС <https://esystem.rudn.ru/course/view.php?id=11516>

* - все учебно-методические материалы для самостоятельной работы обучающихся размещаются в соответствии с действующим порядком на странице дисциплины **в ТУИС!**

8. ОЦЕНОЧНЫЕ МАТЕРИАЛЫ И БАЛЛЬНО-РЕЙТИНГОВАЯ СИСТЕМА ОЦЕНИВАНИЯ УРОВНЯ СФОРМИРОВАННОСТИ КОМПЕТЕНЦИЙ ПО ДИСЦИПЛИНЕ

Оценочные материалы и балльно-рейтинговая система* оценивания уровня сформированности компетенций (части компетенций) по итогам освоения дисциплины «Иностранный язык (факультатив)» представлены в Приложении к настоящей Рабочей программе дисциплины.

* - ОМ и БРС формируются на основании требований соответствующего локального нормативного акта РУДН (положения/порядка).

РАЗРАБОТЧИКИ:

Доцент кафедры иностранных языков

Должность, БУП



Подпись

Закирова Ю.Л.

Фамилия И.О.

Доцент кафедры иностранных языков

Должность, БУП



Подпись

Павлова Е.Б.

Фамилия И.О.

РУКОВОДИТЕЛЬ БУП:

Зав. кафедрой иностранных языков

Наименование БУП



Подпись

Валеева Н.Г.

Фамилия И.О.

РУКОВОДИТЕЛЬ ОП ВО:

Доцент департамента экологической безопасности и менеджмента качества продукции

Шаталов А.Б.

1. ПАСПОРТ ФОНДА ОЦЕНОЧНЫХ СРЕДСТВ

Направление: 05.04.06 «Экология и природопользование»

Профиль: Управление природопользованием (совместно с Ланьчжоуским университетом (УШОС))

Дисциплина: Иностранный язык (факультатив)

В рамках дисциплины «Иностранный язык (факультатив)» происходит формирование составляющих УК-4.

УК-4 - Способность к коммуникации в межличностном и межкультурном взаимодействии на иностранном(ых) языке(ах) на основе владения взаимосвязанными и взаимозависимыми видами репродуктивной и продуктивной иноязычной речевой деятельности, такими как аудирование, говорение, чтение, письмо и перевод в повседневно-бытовой, социокультурной, учебно-профессиональной, официально-деловой и научной сферах общения.

Формирование составляющих компетенций осуществляется на принципах последовательности и взаимодополняемости в процессе формирования умений и навыков письменного и устного научного общения с акцентированием одной из составляющих в зависимости от обучения в рамках того или иного модуля дисциплины.

Виды контроля:

В процессе курса обучения применяются основные виды контроля: текущий, рубежный и промежуточный, направленные на контроль уровня сформированности компетенций дисциплины. Контроль осуществляется в рамках балльно-рейтинговой системы.

БАЛЛЬНО-РЕЙТИНГОВАЯ СИСТЕМА ОЦЕНКИ ЗНАНИЙ СТУДЕНТОВ ПО ДИСЦИПЛИНЕ "Иностранный язык (факультатив) (магистратура)"

1 курс 2 семестр

Количество баллов, начисляемых магистранту за работу в семестре – 100.

Раздел дисциплины	Формируемые компетенции: УК-4	Формы контроля уровня освоения ООП			Баллы темы	Минимальное количество баллов для данной темы для промежуточной аттестации	Баллы раздела
		Темы:	Тесты число заданий – 30, 1 задание – 1 балл, сумма баллов за задания - 30	Активная работа на занятии*			
Научная письменная и устная коммуникация	Аннотирование, реферирование, составление обзоров профессиональной литературы	6	12	18	36	18	100
	Перевод профессиональных текстов	8	7	10	25	13	
	Написание и презентация научной работы по профилю подготовки	4	6	9	19	9	

	Профессионально-деловое общение	5	7	8	20	10	
Итого		23	32	45	100	50	

**БАЛЛЬНО-РЕЙТИНГОВАЯ СИСТЕМА ОЦЕНКИ ЗНАНИЙ СТУДЕНТОВ ПО
ДИСЦИПЛИНЕ "Иностраный язык (факультатив) (магистратура)"
2 курс 3 семестр**

Количество баллов, начисляемых магистранту за работу в семестре – 100.

Раздел дисциплины	Формируемые компетенции: УК-4	Формы контроля уровня освоения ООП			Баллы темы	Минимальное количество баллов для данной темы для промежуточной аттестации	Баллы раздела
		Темы:	Тесты число заданий – 30, 1 задание – 1 балл, сумма баллов за задания - 30	Активная работа на занятии*			
Научная письменная и устная коммуникация	Аннотирование, реферирование, составление обзоров профессиональной литературы	6	12	16	34	17	100
	Перевод профессиональных текстов	8	7	10	25	13	
	Написание и презентация научной работы по профилю подготовки	26	6	9	41	20	
Итого		40	25	35	100	50	

*Под *активной работой* на занятии понимается: опрос выполненного самостоятельного задания (представление аннотации, реферирования, перевода, делового письма, доклад с презентацией по научной работе), участие в дискуссии, аудирование, а также самостоятельная работа студента под руководством преподавателя в аудитории.

Магистранты обязаны сдавать все задания в сроки, установленные календарным планом курса.

Работы, предоставленные с опозданием, не оцениваются, контрольные работы не переписываются.

Автоматическая оценка (зачет по итогам работы в семестре):

Магистранты, набравшие 51–100 баллов по результатам работы за семестр, получают оценку в соответствии с количеством набранных баллов.

Зачет:

Магистранты, набравшие 35 - 50 баллов, должны сдавать зачет.

Магистранты, получившие 51 балл и более за работу в семестре и желающие улучшить оценку, могут набрать дополнительные баллы при сдаче зачета.

При сдаче зачета магистрант может получить до 20 баллов.

Структура зачета:

письменный зачет - до 10 баллов

устный зачет - до 10 баллов

ИТОГО максимальная сумма баллов за зачет - 20 баллов

Количество баллов, полученное на зачете, приплюсовывается к количеству баллов, полученных в течение семестра. В соответствии с общей суммой баллов выставляется итоговая оценка.

Соответствие систем оценок (используемых ранее оценок итоговой академической успеваемости, оценок ECTS и балльно-рейтинговой системы (БРС) оценок текущей успеваемости).

Баллы БРС	Традиционные оценки в РФ	Баллы для перевода оценок	Оценки	Оценки ECTS
86 - 100	5	96 - 100	5 +	A
		86-95	5	B
69-85	1	69-85	1	C
51-68	3	61-68	3+	D
		51-60	3	E
0-50	1	36-50	1+	FX
		0-35	1	F
51 -100	Зачет		Зачет	Passed

КРИТЕРИИ ОЦЕНИВАНИЯ

Раздел 1. Аннотирование, реферирование, составление обзоров научной литературы по специальности.

Аннотирование:

количество за 1 семестр – 12

количество за 2 семестр – 12

количество за 3 семестр – 9

Критерии выставления оценок за аннотирование:

-«отлично»(1 балл) - магистрант логично и последовательно излагает содержание статьи и обнаруживает понимание прочитанного материала, обоснованно использует общеупотребительные клише. Фактические ошибки отсутствуют. В тексте аннотации допущен 1 недочет в содержании; 1

грамматическая ошибка;

-«хорошо» (0,75 баллов) - магистрант представляет аннотацию, удовлетворяющую тем же требованиям, что и для оценки «отлично», но имеет больше недочетов в последовательности и

языковом оформлении излагаемого материала; имеются единичные фактические неточности;

-«удовлетворительно» (0,5 баллов) - магистрант обнаруживает общее понимание содержания текста,

но излагает материал статьи непоследовательно и допускает ошибки в языковом оформлении;

-«неудовлетворительно» (0 баллов) - магистрант допускает ошибки в понимании текста, искажает его

смысл, нарушена логика изложения материала.

Реферирование:

количество за 2 семестр – 16

количество за 3 семестр – 17

Критерии выставления оценок за реферирование:

1. Структура

<i>Введение</i>		0,1
Выявляет и представляет во введении проблематику текста (актуальность проблемы, жанр документа, тип и тональность текста, план основной части)		
<i>Основная часть</i>		0.3
Представляет текст объективно, нейтрально (не вносит дополнительных, отсутствующих в тексте сведений)		0.1
Выбирает и воспроизводит наиболее значимую информацию		0.1
Представляет текст четко и структурированно (следует плану, представленному во введении), делает это спонтанно, непринужденно и аргументированно		0.1
<i>Заключение</i>		0.1
Нейтральное: Размышляет по теме, опираясь на личные аргументы и сведения, а также информацию из текста		
Сопоставительное: Проводит сопоставление ситуации, представленной в тексте, с аналогичной в России или в другой стране		
Аргументированное: Представляет и защищает свою позицию по теме текста, четко и аргументированно обосновывая свою точку зрения		
<i>2. Лингвистическое оформление и наполнение</i>		0.5
<i>Лексика.</i> Владеет лексическим запасом, позволяющим высказаться по предложенной теме, обеспечивающим ясное выражение мысли и отсутствие неоправданных повторов. Употребляет слова в их основном лексическом значении, в случае необходимости легко использует перифразы для заполнения ситуативно возникающих лексических лакун, корректно использует терминологию.		0.16
<i>Грамматика.</i> Правильно употребляет глагольные времена, местоимения, детерминативы, все виды согласований, коннекторы и т. д., характерные для научной речи. Оформляет свою речь в соответствии с правилами устного синтаксиса, используя синтаксические конструкции научной речи		0.16
<i>Фонетика.</i> Произношение и интонация характеризуются четкостью и естественностью. Речь адекватна ситуации порождения, обладая такими параметрами, как адресованность, громкость, экспрессивность.		0.16
<i>Итоговая оценка:</i> 1 – “отлично” // 0.75 = “хорошо” / 0,5 = “удовлетворительно” / 0 = “неудовлетворительно”	ОБЩЕЕ	1

Составление обзоров научных текстов по специальности:

количество за 2 семестр – 2

количество за 3 семестр – 2

Критерии выставления оценок за составление обзоров:

<i>1. Структура</i>		0.5
<i>Введение</i>		0,1
Выявляет и представляет во введении проблематику текстов		
<i>Основная часть</i>		0.3
Представляет тексты объективно, нейтрально (не вносит дополнительных, отсутствующих в текстах сведений)		0.1
Выбирает и воспроизводит наиболее значимую информацию, сопоставляет различные точки зрения, выраженные в текстах		0.1
Представляет текст четко и структурированно (следует плану, представленному во введении), делает это спонтанно, непринужденно и аргументированно		0.1
<i>Заключение</i>		0.1
<i>2. Лингвистическое оформление и наполнение</i>		0.5
<i>Лексика.</i> Владеет лексическим запасом, позволяющим высказаться по предложенной теме, обеспечивающим ясное выражение мысли и отсутствие неоправданных повторов. Употребляет слова в их основном лексическом значении, в случае необходимости легко использует перифразы для заполнения ситуативно возникающих		0.16

лексических лагун, корректно использует терминологию.		
<i>Грамматика.</i> Правильно употребляет глагольные времена, местоимения, детерминативы, все виды согласований, коннекторы и т. д., характерные для научной речи. Оформляет свою речь в соответствии с правилами устного синтаксиса, используя синтаксические конструкции научной речи.	0.16	
<i>Фонетика.</i> Произношение и интонация характеризуются четкостью и естественностью. Речь адекватна ситуации порождения, обладая такими параметрами, как адресованность, громкость, экспрессивность.	0.16	
<i>Итоговая оценка:</i> 1 – «отлично» // 0.75 = «хорошо» / 0,5 = «удовлетворительно» / 0 = «неудовлетворительно»	ОБЩЕЕ	1

Семестр 2

Аннотирование (кол-во 12) × 1 (тах. балл) + реферирование (кол-во 16) × 1 (тах. балл) + составление обзора (кол-во 2) × 1 (тах. балл) = 30 + тестирование (тах. балл 6) = 36 баллов (балл темы).

Семестр 3

Аннотирование (кол-во 9) × 1 (тах. балл) + реферирование (кол-во 17) × 1 (тах. балл) + составление обзора (кол-во 2) × 1 (тах. балл) = 28 + тестирование (тах. балл 6) = 34 баллов (балл темы).

Раздел 2. Перевод научных текстов по специальности.

Перевод научных текстов по специальности.

количество за 2 семестр – 17

количество за 3 семестр – 17

Критерии выставления оценок за письменный перевод научного текста.

- «отлично» (1 балл) - магистрант выделяет коммуникативную задачу, функциональный тип и вид текста, передает логико-композиционную структуру текста, все составляющие содержания текста, адекватно воспроизводит в языке перевода лексико-грамматические и стилистические средства научной речи.

- «хорошо» (0,75 баллов) - магистрант выделяет коммуникативную задачу, функциональный тип и вид текста, передает логико-композиционную структуру текста, все составляющие содержания текста, адекватно воспроизводит в языке перевода лексико-грамматические и стилистические средства научной речи, магистрант допускает 2-4 неточности при выполнении письменного перевода текста; -«удовлетворительно» (0.5 баллов) - магистрант допускает большое количество смысловых

неточностей и испытывает затруднения при передаче грамматических и стилистических особенностей предъявленного текста; -«неудовлетворительно» (0 баллов) - магистрант осуществляет неполный перевод текста и не понимает смысл прочитанного.

Перевод (кол-во 17) × 1 (тах. балл) = 17 + тестирование (тах. балл 8) = 25 баллов (балл темы).

Раздел 3. Написание и презентация научной работы по специальности.

Доклад с презентацией: количество за семестр – 3.

Критерии оценки доклада и презентации.

1. *Структура* – количество слайдов соответствует содержанию и продолжительности выступления (для 7-минутного выступления рекомендуется использовать не более 10 слайдов) – наличие титульного слайда и слайда с выводами (до 0.5 баллов).

2. *Наглядность* – иллюстрации хорошего качества, с четким изображением, текст легко читается – используются средства наглядности информации (таблицы, схемы, графики и т. д.) (до 0.25 баллов).

3. *Дизайн и настройка* – оформление слайдов соответствует теме, не препятствует восприятию содержания, для всех слайдов презентации используется один и тот же шаблон оформления (до 0.25 баллов).

4. *Содержание* – доклад и презентация отражают основные этапы исследования (проблема, цель, гипотеза, ход работы, выводы, ресурсы); содержат полную, понятную информацию по теме работы; отличаются орфографической и пунктуационной грамотностью (до 2 баллов).

5. *Требования к выступлению:*

- выступающий свободно владеет содержанием, ясно и грамотно излагает материал;

- свободно и корректно отвечает на вопросы и замечания аудитории;

- точно укладывается в рамки регламента (7 минут) (до 2 баллов).

Итоговая оценка: 5 – “отлично”// 4 = “хорошо” / 3 = “удовлетворительно”/ 0 = “неудовлетворительно”

Семестр 1, 2

Доклад с презентацией (кол-во 3) × 5 (мах. балл) = 15 + тестирование (мах. балл 4) = 19 баллов

(балл темы).

Семестр 3

Доклад с презентацией (кол-во 3) × 5 (мах. балл) = 15 + тестирование (мах. балл 26 (предзащита))

5.41 балл (балл темы).

Раздел 4. Профессионально-деловое общение.

Деловое письмо: количество за семестр – 3.

Критерии выставления оценок за написание делового письма:

-«отлично» (5 баллов) - магистрант владеет навыками написания делового письма, выдерживает структуру, логику и последовательность изложения деловых писем, использует обороты и клише, характерные для делового общения. Не допускает ошибок.

-«хорошо» (4 балла) - магистрант допускает неточность в структуре оформления письма и 1-2 ошибки негрубые лексико-грамматические ошибки.

-«удовлетворительно» (3 балла) - магистрант допускает нарушения в стиле написания письма, допускает 3-5 лексико-грамматических ошибок.

-«неудовлетворительно» (0 баллов) - магистрант не выдерживает стиль письма, отсутствует логика изложения и нарушена последовательность изложения. Допускает 6 и более ошибок.

Семестр 1, 2

Деловое письмо (кол-во 3) × 5 (мах. балл) = 15 + тестирование (мах. балл 5) = 20 баллов (балл темы).

3. ЗАДАНИЯ ДЛЯ ТЕКУЩЕГО КОНТРОЛЯ И АТТЕСТАЦИИ СТУДЕНТОВ

3.1. Типовое задание на проверку навыков аннотирования и реферирования

1) Выполните аннотирование текста

2) Выполните реферирование текста

SCI-TECHscience

The recent announcement that outdoor air pollution is carcinogenic to humans has caused huge reactions worldwide; provoking discussion in the press, within the scientific community, and among people in general.

(CNN) -- The air many of us breathe poses serious health risks, the World Health Organization says.

On Thursday, it added cancer to the list.

Air pollution is now officially a carcinogen, and there are no caveats about the new classification.

"We know that it is causing cancer in humans," said spokesman Kurt Straif.

In 2010, lung cancer resulting from air pollution took the lives of 223,000 people worldwide. As pollution levels climb, so will the rate of cancer, the WHO said.

And there is only one way to stop it: Clean up the air.

"We can't treat ourselves out of this cancer problem," said Chris Wild, who heads the WHO's cancer research wing, the International Agency for Research on Cancer.

The evaluation by the International Agency for Research on Cancer (IARC) is driven by findings from epidemiologic studies of millions of people living in Europe, North and South America, and Asia.

According to the IARC, there is sufficient evidence that exposure to outdoor air pollution causes lung cancer, and an increased risk of bladder cancer.

The air in China and India is known to be very polluted, but, surprisingly, the air in Northern Africa is, too.

Euronews' Claudio Rocco interviewed one of the authors of the report, scientist Dana Loomis.

"In China and in India much of what we see is due to coal burning," explained Loomis. "It's industry and all the industrial development that is taking place in those countries. Here in Northern Africa, of course, is mostly desert, with few people. The particulate pollution that we see there is from windblown desert dust. So it's quite different in character from the pollution coming from industry."

Loomis added that desert dust is not as dangerous as other sources of air pollution. But, according to an Italian study, it does produce fine particles and can cause a wide range of health problems, including respiratory diseases.

He said the situation in Europe is very variable, with heavy pockets of pollution in certain areas and other, cleaner regions:

"In Europe the main sources today are related to transport. That is vehicles, airplanes, and so on. It used to be industry, and today if you go to China or India it is industry, because those are the countries that are industrialising, much as Europe did 200 years ago," clarified Loomis.

When it comes to protection from pollution, Loomis explained, collective, rather than individual action needs to be taken:

"You know, air pollution is the classic public health problem, because the air belongs to everybody. We all breathe the same air, and so one person can't do very much to improve the quality of their own air. You can cycle to work, you can reduce your use of fossil fuel, but it doesn't help you very much. It helps the community. So it's good if everybody does those things. But it's also important for people to be aware of the problem, to recognize that it's a collective problem and to expect solutions at a governmental and international level."

Cleaner air would also have other health benefits.

Air pollution increases the risk of bladder cancer, it has been known for a while that it contributes to heart disease and respiratory ailments.

The problem is global, but people in developing countries with large populations and booming manufacturing sectors with few pollution controls are said to be particularly at risk.

"The predominant sources of outdoor air pollution are transportation, stationary power generation, industrial and agricultural emissions, and residential heating and cooking," the IARC said.

Outdoor dust can also contribute to cancer.

The agency decided upon the official classification of outdoor air pollution as carcinogenic after reviewing the latest scientific writings and coming to the conclusion that the evidence was ample.

The classification is an important step, said Dr. Christopher Wild, director of the IARC.

"There are effective ways to reduce air pollution and, given the scale of the exposure affecting people worldwide, this report should send a strong signal to the international community to take action without further delay."

The IARC called air pollution the most widespread environmental carcinogen and the worst. The most recent IARC data indicates that, in 2010, 223,000 of the deaths from lung cancer worldwide were the result of air pollution.

But how can we be sure that air pollution was the cause of these deaths? A relevant point, according to

Loomis:

“That’s a really important question. In fact, we can’t be sure,” he responded. “What we do is use statistical models to try to estimate the number of deaths that are due to a variety of different causes: air pollution; other environmental pollutions; cigarette smoking. We use data about large populations from epidemiologic studies. So, it’s an estimate, but we think it’s a good estimate.”

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Something in the air <http://www.euronews.com/2013/10/21/something-in-the-air>

<http://uk.news.yahoo.com/video/carcinogenic-air-pollution-collective-issue-122504157.html>

3.2. Типовое задание на проверку навыков реферирования.

Выполните реферативный перевод текста с русского языка на английский.

«Полезность» свойств географической среды определяется потребностями общества. Извлечение полезных свойств в интересах одной отрасли хозяйства часто приводит к изменению степени «полезности» других свойств. Например, лесозаготовка может привести к усилению эрозии, изменению водного режима территории, загрязнению водоемов и пр.

Рациональное природопользование предусматривает получение максимального эффекта (социального, экономического и т. п.) в течение неограниченного времени. Такая система деятельности предназначена обеспечить наиболее эффективный режим возобновления и экономной эксплуатации природных ресурсов с учетом перспективных интересов развивающегося хозяйства и сохранения здоровья людей.

Основными направлениями рационального использования минеральных ресурсов являются их комплексное освоение, применение в производстве энерго- и ресурсосберегающих технологий, активное внедрение вторичного использования ресурсов.

Примером глубокой утилизации (повторное использование) промышленных и бытовых отходов является Япония, страны Западной Европы, США.

Рациональное природопользование водных ресурсов предусматривает мероприятия по предотвращению загрязнения водотоков и водоем .

Проблема природопользования как составляющая глобальной проблемы «человек и природная среда» — комплексная.

Во первых, это международная (межгосударственная) проблема, поскольку в ее решении принимают участие разные страны. Во вторых, это проблема междисциплинарная, так как к ее решению привлекаются многие науки, среди которых важная роль принадлежит географии.

Спор специалистов о преимуществах и недостатках альтернативных источников энергии, похоже, заканчивается. Стало понятно, что для человечества очень важно искать новые возобновляемые ресурсы.

Энергосбережение, как один из элементов научно-технического прогресса, имеет свою короткую историю, начинающуюся с начала 70-х годов прошлого столетия. В большинстве развитых государств были приняты решения по разработке специальных программ экономии энергии, выделении громадных бюджетных средств на проведение НИР и ОКР. Дело в том, что за 80-е годы был достигнут значительный прогресс в новых технологиях, определенных в качестве приоритетных на первом этапе. И эти наработки стали активно внедряться. Сюда можно отнести тепловые насосы, ветровые генераторы, солнечные элементы. Следует отметить, что одновременно были выделены очень большие средства на публичное продвижение программы энергосбережения и разъяснение ее целей потребителя.

http://www.orsha.by/?page_id=48

3.3. Типовое задание на проверку навыков письменного перевода научного текста по специальности.

Выполните письменный перевод текста с английского языка на русский язык.

INSTANT GREEN SCREENING - LOW MAINTENANCE GREENING SOLUTIONS - ENVIRONMENTAL BENEFITS

This Treebox green screen system takes advantage of the simple concept of encouraging natural climbing plants to cover an existing wall or structure. It is suitable for security fencing and graffiti

prevention. Installed directly into the ground between posts, against an existing wall, or planted in bespoke troughs, they provide an instant green façade or screening effect.

Key Advantages :

This simple solution is based on the natural ability of ivy to grow rapidly. It is one of the most cost-effective solutions on the market. Additional cover can easily be achieved by adding frames and encouraging growth over larger areas. Maintenance is easy with only periodical visits required.

We have got proven solution in green screen applications up to heights of 10 storeys and we give 10-year warranty when maintained by the Treebox team.

Best Applications are urban locations that need a simple, low cost, low maintenance greening solution. The screens are supplied in two heights, 1.8 and 2.2m with green and variegated options. It is especially good for areas where instant results are required for dust suppression, pollution reduction and noise abatement; e.g. a green screen around construction sites.

It offers temporary event solutions; e.g. a green screen around alfresco eating areas.

Considerations

Although fast growing ivy can take time to cover an area larger than the initial installation, i.e. beyond the initial pre-grown frame.

Limited colour and textures available.

What Will It Take to 'Build the Wall'?

Having spent the better part of a year planning, strategizing, and building partnerships with agencies on the ground, the Treebox green screen initiative is beginning to report positive early results in Mexico.

The project's \$2 billion budget, stemming largely from World Bank co-financing and partnerships fostered by the Latin America Union, ensures participating countries will have the means to see the project through to the end.

Examples of success include more than 500 green screens planted in Mexico. Most of these are the ivy species, a small portion of the plants are also fruit-bearing, which, when mature, will help to put more colors in the streets.

Even more dramatic is the project's potential social impact.

http://www.greenscreen.com/Resources/download_it/IntroductionGreenWalls.pdf

3.4. Типовое задание на составление обзоров текстов по специальности.

Составьте обзор следующих текстов.

A) Green energy: tomorrow's reality.

More than three million people across the EU now work in eco-industries, producing nature-friendly goods and services.

It is an increasingly competitive sector, buoyed by constant innovation.

Let's see how scientists and manufacturers are joining forces to support this industrial evolution.

Like in every big city, the air in London is increasingly polluted because of car fumes. One solution is to try and make all taxis emission-free by 2020.

A small fleet of hydrogen-powered taxis is being tested as part of this European project. These black cabs running on fuel cells rather than combustion engines are much cleaner and quieter.

"This vehicle drives entirely differently to anything I've driven before," says taxi driver Phil Davis. "It's much smoother, quieter, and it's a pleasure to drive. It's responsive, everything on it is electronic, which means less work for me to do. After getting out, after a few hours, it's like I've not been to work at all," he says.

A tank-full of hydrogen gives the taxi up to 400 kilometres autonomy. The tests should give researchers a better idea of how to make the vehicles lighter and more efficient.

Today, converting a car to hydrogen fuel increases its price five-fold - making it completely unaffordable. But at the current rate of research, it's hoped this technology can become more competitive in the next few years.

"There are standards that will still need to be put in place for hydrogen vehicles, but part of projects like this helps to address those issues. As we move towards commercialisation of these vehicles in 2015, the required regulations will be addressed and in place," says Diana Raine, project coordinator for the HyTEC (Hydrogen Transport for European Cities) project.

With a growing demand for clean fuels, governments and scientists need to get together to develop more efficient vehicles and better infrastructure.

The European Commission's in-house science service, the Joint Research Centre (JRC), based in northern Italy, works with a wide range of eco-industries.

In the JRC's vehicle emissions laboratory, tests are being carried out on new equipment that reduces harmful engine exhausts. "We look into different options, we assess these technologies, and then we share our conclusions with the car-making industry, setting the new standard of the future for these cars," says Alois Krasenbrink, Head of the JRC's Sustainable Transport Unit.

But is hydrogen a cleaner alternative if it relies on fossil fuels for its production? Are electric cars running on batteries made of imported, rare earth compounds sustainable? Scientists are looking not only at the final product but at its carbon footprint.

"It is certainly true that on a local level, on an urban level, electric and hydrogen fuelled vehicles are cleaner," says Laura Lonza, scientific officer in vehicle and fuel innovation at the JRC.

Laboratory analyses of combusting engine emissions can differ from real-life situations. This new mobile device, developed at the Joint Research Center, fits in a car trunk and works while the vehicle is on the road.

"The device is connected to the exhaust pipe. The exhausts go to the fume meter. This allows us to measure directly the fume exhaust flow, and to extract a part of this flow which is then analysed," says Alois Krasenbrink.

Mobile tools like this are able to provide much more accurate measurements. For example, these tests show that in certain real-life conditions, cars produce two to four times more emissions than in a lab.

I know "All that glitters is not gold" but this is an example where public money is being spent today. Electric cars are far from being eco but their owners don't pay additional tax - London congestion charge.

Biodiesel from algae is sadly missing from this video. Hydrogen fuel cell sounds great and all, but driving around in a complex bomb is not. There is an old saying "keep it simple stupid" the designers need to revisit this concept. The solar segment in the video was wonderful, though I was hoping they would cover other systems as well. After all, we don't have a "silver bullet" we have "silver buckshot", the public needs to know the many solutions we have, that are available now.

euronews futuris :

http://www.youtube.com/watch?v=POMkyF5hAxM&feature=youtube_gdata

B) Morocco makes renewable energy progress

With over 300 days of sunshine per year, Ain Beni Mathar in Morocco, near the border with Algeria, was the perfect site to build a thermal and solar hybrid plant.

The first of its kind in Africa, Ain Beni Mathar is a real opportunity for Morocco to explore alternative sources.

The country suffers greatly from its energy dependence, importing 97% of its coal and oil energy needs.

The National Office of Energy and the African Development Bank have opened the doors of the plant to euronews. On a guided tour, the company's Chief Operating Officer Nour Eddine Fetian told us: "The principle is that the plant consists of two lines, two gas turbines, two heat recovery steam generators, one steam turbine and lines for production and energy discharge. So steam is produced by two sources: there is natural gas, under the normal combined cycle, and the steam produced by the solar field. Both vapours converge towards the steam turbine and are integrated at the same time to produce electric power.

The total output of the power plant is 472 megawatts, 20MW of which is solar, allowing it to satisfy about 10% of the country's energy demand. Ain Beni Mathar is supplied with natural gas by the Maghreb / Europe pipeline.

Fetian Nour Eddine, the director of the Beni Mathar power plant also spoke about the intelligent energy recovery system: "So the combined cycle recovers energy from the exhaust gases to produce steam. Basically, after being emitted, the exhaust gas enters a recovery boiler. The boiler is fueled by

water and produces steam through heat exchangers. This steam then reaches certain parameters of temperature and pressure to enter the steam turbine, where it converges with the steam produced by the solar field to power the turbine and produce electrical energy through this mechanism."

The plant uses an innovative cooling system. The giant fans are air-cooled condensers. They reduce water consumption by 5.3 million cubic metres per year and from at least one million cubic metres per year, there'll be an 80% saving of water.

The plant's director also explained how the cooling system works: "Since it operates in a closed cycle, the steam powering the turbine must condense. And so we need a cooling system. The system used in this plant is a dry cooling system, which minimises water consumption. So in effect, it becomes an air-water exchanger. Through the fans it draws in fresh air and is injected into a heat exchanger to condense the steam, recycle the water and resume the cycle early. But most importantly, it reduces water consumption by a very significant margin."

The solar array occupies 88,160 hectares of the site: the 3688 cylindrical and parabolic panels follow the sun's path. The site is a testing ground for Morocco. A 100% solar plant with a capacity of 2GW (giga watt) will soon come to Ouarzazate.

Fetian Nour Eddine, director of the Beni Mathar ISCC power plant said: "Here we have this parabolic format, which allows the dish to track the exact position of the sun to maximise the radiation. It quickly reflects the rays back toward the collector. This is where you find a special tube that circulates the oil. The oil recovers the maximum recovered energy of solar radiation and then transfers that heat to the recovery boiler."

The plant meets strict environmental standards - allowing Morocco to save 12,000 tons of fuel oil per year. To halt its energy dependence, Morocco has implemented plans to produce 40% of renewable energy by 2020.

<http://www.youtube.com/watch?v=ZbR81eIla2g>
euronews hi-tech :

3.5. Типовое задание на проверку умений и навыков профессионально-делового общения.

9. Расположите части делового письма в правильном порядке.

1. April 11, 1000

2. Yours sincerely

3. 1315 Allron Drive
St. Paul, Minnesota 55151

4. Dear Mr. Jack Freeman

5. I would like to place the following order from your September catalogue:

-- 1 red, white and blue soccer ball, plastic \$ 1.67

-- 1 lightweight wool sweaters

--1 size 15-33, light green, pullover

2. Определите, к какому виду делового документа относятся представленные ниже отрывки.

в I have recently written an article about Lady Hester Stanhope for Kent County Magazine, and the editor has asked me to supply a photograph. I believe you have one in the National Gallery and I am writing to enquire if you would permit me to use it. Please let me know the fee you would charge.

в Dear Personnel Director:

I wish to apply for the full time opening you described in The Times last Sunday for a General Manager.

3. Напишите деловое письмо-запрос информации для получения сведений об условиях приема на работу.

3.6. Типовые вопросы на проверку умений говорения (монологическая и диалогическая речь).

I. Answer the following questions:

1. What kind of test is done to try to prove theories?
1. What is one group used in an experiment?
3. When do scientists come to a conclusion?
1. What are some factors that determine an area's climate?
5. What is a greenhouse gas? What are the primary greenhouse gases?
6. What is the main reason of disrupting ecosystem?

II. Prepare a one-minute talk on the following topics and answer the questions:

1. Talk about the Earth's structure and spheres.
2. Talk about landforms.
3. Talk about components of an ecosystem.
4. Talk about trophic levels.
5. Talk about terrestrial biomes. Follow-up questions:
What are the parts of the atmosphere?
What landform is completely surrounded by water? What is an example of a habitat?
What is an example of a producer? What are some types of forest?

3.7. Типовые задания на проверку умений письменной научной речи

1) Write the application for research funds.

Professor:

Location of project:

Description of project:

2) Write the ecological report.

Area:

List populations that are threatened:

What is threatening the population:

What will probably happen to the population:

3.8. Типовые задания на проверку лексико-грамматических навыков

1) Заполните пропуски.

1. We usually find out if there will be rain or snow tomorrow listening to the weather on TV.
a. forecast b. news c. questions d. answers
1. We could hardly see through the window because of the .
a. cool b. mist c. warm d. rainbow
3. There are seven colors in a : red, orange, yellow, green, light blue, blue, violet.
a. rainbow b. sun c. moon d. water
1. The weather is changeable and very difficult to .
a. say b. forecast c. expect d. see
5. In Britain the weather is . It may be rainy, then sunny and rainy again.
a. changeable b. interesting c. misty d. dangerous
6. When the seamen want to know if there will be a storm, they look at a .
a. sea b. barometer c. map d. window
7. People always want to know more. It is nature.
a. human b. animal's c. people's d. insects'
8. Some people fall ill when it is very hot, they can't stand the .
a. hotness b. warm c. heat d. dry
9. The climate is changing, it is getting warmer because of the .

a. rainy weather b. hot c. greenhouse effect d. rainbow

10. There used to be many old trees in the rainforests but there are few ones nowadays.

a. thin b. huge c. small d. broken

2) Расположите все слова в правильном порядке.

1. on Fridays/in the cafe/eats breakfast/always/he— safely/they/arrived/this morning/home— drinks coffee/in the evening/never/Sam— on a yacht/she sails/every summer/round the islands— quietly/in his bed/slept/the baby/all night— often/home/she/goes/on Sundays/early— rarely/you/see/cricket/these days/on TV—

in the garden/the nightingales/last night/loudly/were singing---

9. early/ every/ he/ to get up/ day/Saturday/ has/except---

10. later/ subject/ will/or/a bit/ a discussion/ have/ the/ you/ on/ now---

3) Выберите единственно правильный вариант ответа.

1. You will spoil the work if you _____ careful.

a. won't be b. will not c. aren't d. don't be

1. If you _____ harder, your teacher will certainly appreciate it.

a. will work b. will be working c. shall work d. start working

3. If we _____ time, we will discuss this problem.

a. shall have b. has c. have d. had

1. I will be angry if he _____ any more mistakes.

a. makes b. would make c. will make d. making

5. We won't leave until it _____ raining.

a. doesn't stop b. won't stop c. isn't stop d. stops

6. If it _____ rain in the morning, we _____ visit our friends in the country.

a. isn't, will b. doesn't, will c. doesn't, are d. won't rain, are

7. If they _____ umbrellas with them, they _____ by rain.

a. take, won't be caught b. will take, didn't catch c. took, won't be caught d. have take, will not catch

8. If we _____ care of the nature, our planet _____ in some years.

a. don't take, is destroyed b. won't take, will destroyed c. don't take, will be destroyed d. won't took, has destroyed

9. --If it _____ tomorrow, our trip _____.

--So _____ ours.

a. rain, will spoil; will be

b. raining, will be spoil; will be

c. rains, will be spoiled; do

d. rains, will be spoiled; will be

10. If people _____ the atmosphere, living standards _____ higher.

a. doesn't pollute, are b. don't pollute, will be c. is polluting, won't be d. will pollute, will be

3.9. Типовые задания на проверку умений чтения

1) a) Read the text

Abraham Lincoln, the sixteenth President of the United States, was born on a farm in Kentucky, on February 11, 1809. Abraham's father made his living by farming and by working, from time to time as a carpenter. His mother died as he was only nine years old. Lincoln had no more than a year's education, but during that time he managed to learn reading, writing and arithmetic. As a young man, Abraham had many jobs, some of which involved him in journeys down the Mississippi where he could see auctions of Negro slaves. From that time on he became opposed to the idea of slavery.

б) Определите, какое утверждение является правильным

a. Lincoln's experience made him go up against slavery.

b. Lincoln had difficulty finding a job as he knew little arithmetic, reading or writing.

c. Abraham's father made him do a lot of farming and carpentry.

d. Negro auctions made little impression on Lincoln.

c) Определите, какое из утверждений является неправильным.

- a. Lincoln was born in the state of Kentucky.
- b. Lincoln changed a lot of jobs, one of them--at an auction of Negroes, down the Mississippi River.
- c. Lincoln's mother died when he was a boy.
- d. Lincoln's father was a farmer and a carpenter.

2) Read the text and translate it into Russian.

Water is necessary for life. It covers over 70% of the Earth's surface and is a very important resource for people and the environment. Plants and animals require water that is moderately pure, and they cannot survive, if water contains toxic chemicals or harmful microorganisms. Water pollution kills large quantity of fish, birds, and other animals, in some cases killing everything in the affected area. The major water pollutants are chemical, biological, and physical materials that lessen the water quality.

Pollutants can be separated into several different classes:

The first class is petroleum products: oil, fuel, lubrication and plastics. Petroleum products get into water by accidental spills from ships, tanker trucks and when there are leaks from underground storage tanks.

The second class is pesticides and herbicides. If they penetrate into streams, rivers, lakes, these chemicals can be very dangerous. Going up through the food chain, the chemical becomes more harmful.

The third class is heavy metals, such as, mercury, selenium, uranium, radium, cesium, etc. They get into the water from industries, automobile exhausts, mines, and natural soil.

The fourth class is fertilizers and other nutrients, which are used to promote plant growth on farms and in gardens.

The fifth class is infectious organisms and pathogens. They enter water through sewage, storm drains, runoff from farms, etc.

The last one is thermal pollution. Water is taken from rivers, lakes or seas to be used in factories and power plants. It is usually returned to the source warmer than when it was taken. Even a small temperature change can drive away the fish and other species that were originally there, and attract other species in place of them. It breaks the balance and can cause serious circumstances in future.

a) Answer the questions:

1. Why is water an important resource for people and the environment?
2. How does water pollution influence flora and fauna?
3. What is the main effect of water pollution?
4. What are the major water pollutants?
5. What classes can water pollutants be separated into?

b) Fill in the correct word from the list below: desertification, awareness, sustainable, supply, rate, supplies

In every corner of the globe, we are polluting, diverting, pumping, and wasting our limited _____ of fresh water at an exponential _____ as population and technology grows, resulting in the _____ of the earth. We must begin to manage our water more efficiently and keep our limited freshwater _____ pure. Achieving a more _____ use of urban public water supplies requires not only the implementation of certain measures, but also raising public _____ on water conservation issues.

4. Типовые задания на проверку умений аудирования:

a) You will hear a radio interview. What are benefits and dangers of the sun?

b) True or false?

The sun is very good for skin complaints like acne.

Sunlight acts on the skin to reduce Vitamin C.

Sunlight is responsible for 85% of skin cancers.

80% of sun damage occurs before the age of 10.

c) Fill in the blanks.

For _____ people the risk of _____ doubles every thousand kilometres nearer the _____ you go. It's the _____ that does the damage. You should use a good _____ to increase that but remember that _____ depends on how thinly you _____ on your skin. Once your skin is tanned, the tan will protect your skin _____ than an untanned skin, but it's a good idea to carry on using a light sunscreen all the same.

Tapescript

Benefits and Dangers of the Sun

PRESENTER: Thank you, John, for that report from Costa Rica. We'll have details of that and all the other holidays at the end of the programme. And now we come to the spot in the programme where we focus on holiday health issues. I think there's no doubt that for many of us a golden tan is the ultimate goal of our annual holiday, and this week Carol has been looking into the benefits and dangers of the sun. What's the good news, Carol?

CAROL: Well, the sun does have several beneficial effects on the skin. It stimulates the circulation, for example, and it's very good for skin complaints like acne. In addition, sunlight acts on the skin to produce Vitamin D, which is vital for our health.

PRESENTER: I always think that the sun has a good psychological effect as well. Is that true?

CAROL: Yes, in fact there's evidence that a lack of sunlight makes some people ill. So, if you work in artificial light, doctors think it's a good idea to try to spend at least 15 minutes a day in natural daylight. That's during the summer - and you need longer in winter.

PRESENTER: OK, how about negative effects?

CAROL: Well, sunlight is responsible for 95% of skin cancers although, fortunately, 89% of these cancers are cured. And it's particularly important to protect children from strong sunlight because 80% of sun damage occurs before the age of 10.

PRESENTER: And what about people like us, from colder countries ...?

CAROL: Yes, well, the more intense the light, the higher the risk of skin damage. For light-skinned people the risk of skin cancer doubles every thousand kilometres nearer the equator you go. It's the ultraviolet light that does the damage and before you go swimming or walking, it's worth remembering that ultraviolet can pass through water, shade and even through thin clothing.

PRESENTER: So what should we be doing?

CAROL: Well, the skin has its own protection from about 30% of ultraviolet light. You should use a good sun screen to increase that, but remember that the degree of protection depends on how thinly you spread the cream on your skin. Once your skin is tanned, the tan will protect your skin two to four times more than an untanned skin, but it's a good idea to carry on using a light sunscreen all the same.

PRESENTER: And how long will that tan last?

CAROL: About 30 days, on average.

PRESENTER: So the message is: enjoy the sun but never underestimate its power, and make sure you take sensible precautions to protect yourself from its harmful effects. Thanks, Carol.

5. Типовые рубежные тесты.

Типовой рубежный тест 1 семестр

Grammar activities

Test 1. Infinitive Constructions.

Choose the right variant:

- 1) Many organizations allowed _____ new recycling programs in their business processes
a) to introduce b) introducing c) introduce
- 2) The report on the negative effects of the greenhouse effect made us _____ uncomfortable.
a) to feel b) feeling c) feel
- 3) Has the secretary come yet? I want to have my papers printed.

- a) to have b) have c) having
- 4) I watched plants _____ from seeds.
a) grow b) growing c) to grow
- 5) Many consumers are nowadays committed to “_____ green.”
a) go b) going c) to go

Test 2. Form a noun from a verb.

(to grow) Interactive simulation of a seed growing into a flowering plant help children aged 5-6 investigate the conditions plants need for _____ .

Test 3. Form an adjective from a verb.

(to know) Several well-_____ and highly successful companies are proving to be leaders in the fields of environmental sustainability.

Test 4. Choose the right tense form:

Eco-friendly businesses often _____ from favorable public opinion and greater customer loyalty.
a) benefit b) are benefiting c) will benefit

Translation activities

Translate the sentences into Russian.

1. Recently more and more attention has been focused on the problem of preserving the environment
2. The present-day situation forces more and more countries to start contributing to this field of research.
3. The link between the spread of some diseases and the quality of water for drinking and washing is absolutely clear.
4. Nobody expects this problem to be solved within such a short period of time.
5. Lead is found in old water pipes and old paints. Occasionally, small children get lead poisoning from eating lead-based paint from the walls of old houses.
6. We know national parks to be abused and subjected to tourism in such a volume and pattern as to degrade and destroy the very natural resources whose preservation is legally required.
7. As a matter of fact, no living organism can be expected to survive at such temperature.
8. Birds, fish and mammals are often responsible for the distribution of parasites infecting man through water supplies.
9. Developing countries today can also use large scale water chlorination because it is cost-effective.
10. The females of Emperor Penguins care the eggs solely, the males being far away from the colony in the open ocean to get food for the females.

Реферирование текстов по специальности

Прочитайте текст и выполните задания.

Deke Arndt, Climate Monitoring Branch Chief, National Climatic Data Center

On any given day or any given month, somebody somewhere – maybe even where you live – experiences colder-than-average temperature, even though the globe as a whole is warmer than average. Pockets of cold on a warming planet. How can both be true? It has been true for hundreds of months. These patterns are complex, but they’re not random.

Tracking global temperature starts with measurements in specific places. Long-term temperature records at stations like this establish what is “normal”. It’s the average temperature. Subtracting this average temperature from the observed temperature leaves a “temperature anomaly”.

The data from stations across large areas allow us to map these temperature anomalies around the globe. The red areas on this map were warmer than average during winter – December, January, and February. Blue areas were colder than the long-term averages. Last winter, the western United States was colder than average, but the East was warmer. Intense cold blanketed northeastern Asia while it was warmer than average just to the west. Even though there are a many pockets of cold, the overall global temperature was above average. The area with above-average temperature outweighed the area with below-average temperature.

Another interesting pattern is clear in this dataset. Notice that the temperature anomalies over the ocean are much more muted than over land. This is because the ocean warms, and cools, more slowly than land. Notice how much of the ocean is above average, though.

Moving into Spring, this March was below the 20th century average in the United States, but the overall global temperature remained above the long-term average.

In studying regional climate patterns, climatologists are learning about the planet as a whole. Understanding why one region differs from another takes an understanding about interactions among the atmosphere, the ocean, and even human decisions. Sometimes, being climate-smart can be as complex as the climate system itself.

From Asheville, North Carolina, I'm Deke Arndt

Related

March 2013 Global Temperature Update

March: Out Like a Lion

Exercise 1. Give a title to the article. Give the main idea of the text.

Exercise 2. Ask questions to find the main idea of each paragraph.

Exercise 3. Translate the following:

Tracking global temperature starts with measurements in specific places. Long-term temperature records at stations like this establish what is "normal." It's the average temperature. Subtracting this average temperature from the observed temperature leaves a "temperature anomaly."

Exercise 4. Make a summary using the following forms:

The ... subject (matter) ... of this paper is ...

The present paper ... goes (inquires) into / focuses on / deals with...

The aim of this paper is to find some optimal ways of... This paper aims at... Writing this paper there were two / three goals in mind... The ... chief/general... aim is...

In this paper, ... attempt to clarify the relation of To do so, ... first present ... then attempt to show that...

The structure of this course paper is as follows. The first part reviews / describes / clarifies / outlines Part 2 (section 2) dwells on / enlarges upon / shows that / argues that The final part proposes / summarizes / spells out in detail.

Summing up the results of the conducted analysis the following conclusions can be made:... I want to end this paper ... by repeating / stressing / emphasizing / nothing that The obtained results ... can be directly applied to the process of In conclusion, ... is considered. / It is concluded that.../ Thus, we can make a conclusion (a conclusion can be made) that... / From the results it is concluded that... It may be noted (stated) that...

Exercise 5. Make a brief abstract in Russian (3 sentences, no more than 70 words)

Типовой рубежный тест 2 семестр

Grammar activities

Test 1. Introduce appropriate linking words:

Actually, for example, in general, finally, on the whole, as a rule, in this case, also, in most cases, in other words, moreover, what is more, so, in particular, in addition, besides, especially, mainly, as well (as), not only... but also, to put it more simply, in fact, perhaps, it's also possible that, let's say:

There is, _____, little scientific dogma on cat navigation.

_____ migratory animals like birds, turtles and insects have been studied more closely, and _____ use magnetic fields, olfactory cues, or _____ orientation by the sun.

Scientists say it is _____ more common, although still rare, to hear of dogs returning home.

_____ Dr. Bradshaw said, that they have inherited wolves' ability to navigate using magnetic clues.

But _____ dogs get taken on more family trips, and _____ lost dogs are more easily noticed or helped by people along the way.

“ ___ Cats navigate well around familiar landscapes, memorizing locations by sight and smell, and ___ easily figuring out shortcuts”, Dr. Bradshaw said.

“ ___ they associate the smell of pine with wind coming from the north, ___ they move in a southerly direction,” Dr. Bateson said ___.

“It’s ___ happened to me,” said Jackson Galaxy, a cat behaviorist who hosts “My Cat From Hell” on Animal Planet.

Test 2. Find and translate the modal verb.

Holly the cat hardly seemed an adventurous wanderer, though her background **might** have given her a genetic advantage. Her mother was a feral cat, but after all, she spent most of her life as an indoor cat, except for occasionally running outside to chase lizards. This cat, it **could** be she has the personality of a survivor.

Translation activities

Translate the sentences into Russian.

The environment is now on the political agenda throughout the world. Increasing concern shown by the electorate about the quality of their environment has encouraged governments and business to prepare for local and international action. The major issues include:

- possible climate change;
- land degradation and the impact of agriculture; air and water quality;
- loss of habitat, particularly wetlands and forests;
- biological diversity;
- waste and problems of its disposal; and
- depletion of the ozone layer.

Wastes – both those produced and those avoided – are a major concern in any consideration of sustainable development.

Energy resources are available to supply the world’s expanding needs without environmental detriment.

Wastes remain a major consideration whether they are released to the environment or not. Ethical principles seem increasingly likely to influence energy policy in many countries, which augurs well for nuclear energy.

The competitive position of nuclear energy “is robust from a sustainable development perspective since most health and environmental costs are already internalized.”

Реферирование текстов по специальности

Прочтите текст и выполните задания.

Burning fossil fuels produces primarily carbon dioxide as waste, which is inevitably dumped into the atmosphere.

With black coal, approximately one tone of carbon dioxide results from every thousand kilowatt hours generated.

Natural gas contributes about half as much CO₂ as coal from actual combustion, and also some (including methane leakage) from its extraction and distribution.

Oil and gas burned in transporting fossil fuels adds to the global total. As yet, there is no satisfactory way to avoid or dispose of the greenhouse gases which result from fossil fuel combustion.

Today uranium is the only fuel supplied for nuclear reactors. However, thorium can also be utilized as a fuel for CANDU reactors or in reactors specially designed for this purpose.

Thorium is reported to be three times as abundant in the earth’s crust as uranium, it can be used as a nuclear fuel.

Neutron efficient reactors, such as CANDU, are capable of operating on a thorium fuel cycle, once they are started using a fissile material such as U-235 or Pu-239. Then the thorium (Th-232) atom captures a neutron in the reactor to become fissile uranium (U-233), which continues the reaction.

Some advanced reactor designs are likely to be able to make use of thorium on a substantial scale.

The thorium fuel cycle has some attractive features, though it is not yet in commercial use.

The 2009 IAEA-NEA "Red Book" lists 3.6 million tones of known and estimated resources as reported, but points out that this excludes data from much of the world, and estimates about 6 million tones overall.

See also companion paper on thorium. Main references OECD NEA & IAEA, 2010, Uranium 2009:

Resources, Production and Demand WNA 2009 Market Report.

UN Institute for Disarmament Research, Yury Yudin (ed) 2011, Multilateralization of the Nuclear Fuel Cycle – The First Practical Steps.

Exercise 1. Give a title to the article. Give the main idea of the text.

Exercise 2. Ask questions to find the main idea of each paragraph.

Exercise 3. Make a summary using the following forms:

The ... subject (matter) ... of this paper is ...

The present paper ... goes (inquires) into / focuses on / deals with ...

The aim of this paper is to find some optimal ways of ...

This paper aims at...

Writing this paper there were two / three goals in mind... The ... chief / general ... aim is...

In this paper, ... attempt to clarify the relation of...

To do so, ... first present... then attempt to show that... The structure of this course paper is as follows.

The first part reviews / describes / clarifies / outlines...

Part 2 (section 2) dwells on / enlarges upon / shows that / argues that... The final part proposes / summarizes / spells out in detail...

Summing up the results of the conducted analysis the following conclusions can be made:...

I want to end this paper... by repeating / stressing / emphasizing / noting that...

In conclusion, ... is considered. / It is concluded that...

Thus, we can make a conclusion (a conclusion can be made) that...

From the results it is concluded that...

It may be noted (stated) that...

Exercise 4. Make a brief abstract in Russian (3 sentences, no more than 70 words)

Типовой рубежный тест 3 семестр

Задание 1

Заполните пропуски:

1. The children swam quickly to the _____ in the sea.
 - a. Rock
 - b. House
 - c. Mountains
 - d. Stone
2. He is a real businessman, wealthy, successful, happy, in other words, rather _____.
 - a. Prosperous
 - b. Picturesque
 - c. Devotion
 - d. Striking
3. The clock of the House of the Parliament _____ every hour.
 - a. Striking
 - b. Strikes
 - c. Hang
 - d. Takes
4. It's hard work to learn to speak a foreign language _____.
 - a. Quick
 - b. Fluently
 - c. In brief
 - d. In short

5. You can easily cross this _____. It is not deep and wide.
- Ocean
 - Sea
 - Stream
 - Path
6. Everyone knows that the sun _____ in the west.
- Sets
 - Rise
 - Rises
 - Setting
7. There are many people in light clothes walking along the _____ of the ocean.
- Shore
 - Beach
 - Bank
 - Side
8. Little children like to play in warm sand on the _____ of the sea.
- Bank
 - Beach
 - Pavement
 - Road
9. People can hardly live in the _____ because there is no water there.
- Desert
 - Forest
 - Field
 - Sea
10. If you look at the map of the world, you can see many rivers, forests, seas, lakes, oceans and mountain _____ there.
- Rows
 - Ribbons
 - Chains
 - Crosses

Задание 2

Выберите единственно правильный вариант ответа:

GLOBAL WARMING

1. Far into ___ future, the Earth is getting warmer and warmer ___ ice caps melt and sea levels _____.
- A, that, rises
 - The, as, rise
 - , as, rising
 - An, if, rise
2. That ___ the ___ scientific data _____ global warming.
- Are, last, of
 - Is, last, on
 - Is, latest, of
 - Is, latest, on

3. The work of several _____ scientists, _____ spent three years on the project, consists _____ 1,000-plus-page report.
- Hundred, who, of
 - Hundreds, who, in
 - Hundred, that, of
 - Hundreds, who, of
4. But _____ bottom line is clear: human-caused climate change _____ continue _____ many centuries.
- A, is, for
 - The, will, in
 - The, will, for
 - , are, for
5. Global temperatures could rise by more _____ 10 degrees Fahrenheit over _____ next century, as much as they've _____ since the last Ice Age 20,000 years ago.
- That, the, rise
 - Then, a, risen
 - Than, the, rose
 - Than, the, risen
6. While 10 degrees difference would cause _____ frosty New England morning, much warming _____ bring with _____ more thunderstorms, floods and water-born diseases.
- A, could, it
 - The, can, him
 - , could, them
 - An, would, it
7. Skeptics _____ already expressed doubts _____ the weather _____ report.
- Are, about, changes
 - Has, of, changing
 - Have, about, changes
 - Is, about, changes
8. Some of them _____, the "scary predictions" _____ based _____ computer models only.
- Says, are, on
 - Say, are, on
 - Say, is, on
 - Say, are, of
9. Most experts now understand that the "greenhouse effect" _____ the cause _____ climatic change, and that _____ main cause is carbon dioxide and other gases from factories.
- Is, at, it
 - Is, of, it's
 - Are, of, it
 - Is, of, its
10. It _____ very likely _____ this century have higher maximum temperatures and more hot days over nearly all land _____.
- Is, that, area
 - Will, that, areas
 - Is, that, areas
 - Does, then, areas
11. The 1990s was the _____ period, and 1998 was _____ warmest year since instrument recording started _____ 1861.

- a. Warm, a, in
 - b. Warmest, the, in
 - c. Warmer, –, in
 - d. Warm, the, in
12. Snow cover in the Northern Hemisphere has become ___ by 10 percent since ___ 1960s, and the thickness of Arctic ice has ___ thinner by as much as 40 percent.
- a. Less, the, become
 - b. Little, a, become
 - c. Least, the, become
 - d. Less, –, become
13. But what ___ the solution ___ this problem ___?
- a. Is, of, be
 - b. Can, of, is
 - c. Is, of, –
 - d. Is, in, be
14. In Kyoto, Japan, ___ 1997, more ___ 100 countries signed ___ treaty.
- a. At, that, the
 - b. In, than, a
 - c. In, then, a
 - d. In, that, –
15. ___ included the general requirement ___ industrialized nations should stop greenhouse-gas emission by 5 percent below 1990 level ___ 2010.
- a. He, that, by
 - b. It, what, in
 - c. Its, that, by
 - d. It, that, by
16. But nobody ___ how ___ it ___ practice.
- a. Know, to do, at
 - b. Knows, do, in
 - c. Knows, to do, in
 - d. Knows, doing, in
17. ___ any case, people began ___ efforts ___ control climate change.
- a. In, making, in
 - b. At, make, in
 - c. In, to make, at
 - d. At, making, at
18. “Although this problem was created ___ people many years ago, consequences are now ___ clear,” says Nancy Kete.
- a. In, her, quiet
 - b. By, it, quite
 - c. By, it’s, quite
 - d. By, its, quite
19. She is ___ director ___ the World Resources ___ climate, energy, and pollution program.
- a. A, of, Institute’s
 - b. The, in, Institute’s
 - c. –, at, Institute
 - d. A, in, Institute

20. ____ responsibility ____ reduce carbon emission lies ____ industrialized countries.
- A, in, with
 - The, to, with
 - , to, with
 - The, to, at

Задание 3

Выполните перевод текста

THE IMPORTANCE OF BEING “GREEN”

The word “ecology” means a natural balance between all living creatures and their environment. But unfortunately, the humans have destroyed it and the ecological problems have become the most important ones. People all over the world try to solve them to survive. Governments make laws to protect air, water and soil against pollution. International environmental organizations try their best to help. Greenpeace is the most famous one. Its members appear in the places where the environment is endangered. They always act fast and bravely. The whole world knows about the Greenpeace actions to stop hunting whales or killing baby seals, to block the way to the ships that try to dump waste. They work hard to create a nuclear-free world. Some people are active members of such organizations, some support them with money. But nowadays it’s more important to realise that every person should change his/her traditional lifestyle, to become a “green” person to survive. That’s why even children are taught ecology at schools. They discuss the ecological problems, study their own environment, try to become more friendly to nature. We can’t stop using cars, they are necessary for us. But if we use them less, we will protect the air against the pollution. Thus in many countries people use bicycles more often for shopping or short trips. It’s cheaper and keeps the air cleaner. At our homes we should save as much as we can including water, gas, electricity resources. We should be careful buying washing powders. Some types of them are friendly to our environment, but some are harmful and dangerous. We should remember that we are part of nature, so we are endangered too. We have little physical activity, watch TV for many hours, work on computers, eat wrong food. We are destroying ourselves. When people realise the importance of the environmental problems and change their lifestyle, half of work will be done. There is still hope.

Задание 4

Выполните реферирование текста:

CHIMPANZEE GROUPS HAVE UNIQUE CULTURES, BUT PEOPLE COULD BE DESTROYING THEM

Most people know that chimpanzees, some of the closest living relatives of human beings, are extremely intelligent. It’s less well-known that different communities of chimpanzees have unique cultures — meaning they exhibit socially learned behavior that get passed from generation to generation.

As researchers learn more them, they are also discovering more about the diversity of behaviors within chimpanzee groups — activities learned, at least in part socially, and passed from generation to generation. These patterns are referred to as “traditions” — or even animal “culture.” In a new study, scientists argue that this diversity of behaviors should be protected, and that they are now under threat from human disturbance.

“What we mean by ‘culture’ is something you learn socially from your group members that you may not learn if you were born into a different chimpanzee group,” Ammie Kalan, a primatologist involved the study, told The Associated Press.

For example, New Scientist notes there’s one chimp community that uses moss like a sponge to soak up and drink water — a behavior not seen in other groups. For example, researchers studying chimpanzee groups in parts of West Africa encountered mysterious piles of stones alongside battered tree trunks. Perhaps the purpose was to mark territory, or proclaim dominance within a group, or start a game, or something else, the biologists surmised.

But not all chimpanzees are stone-throwers. Some groups use stones to crack open tree nuts. Elsewhere in West Africa, sticks were the tools of choice, with young chimps in Guinea learning from their elders to use them to “fish” in lakes for long strands of algae to eat. Or, in Nigeria, to poke termite mounds to gather the insects for food.

“As chimpanzee populations decline and their habitats become fragmented, we can see a stark decline in chimpanzee behavioral diversity,” said Kalan, co-author of the sweeping new study published Thursday in the journal *Science*.

In a study published in the journal *Science*, researchers looked at 31 behavioral traditions among 144 chimpanzee groups across Africa. They found that in areas with heavy human activity like logging or road building, the animals were less likely to exhibit these kinds of behaviors.

A fragmented landscape makes it harder for learned behaviors to spread, and some human activity may force chimps to live in smaller groups, where less social learning is likely to occur, primatologist and lead study author Hjalmar Kuhl told the Associated Press.

Climate change may also play a role, since it alters chimpanzee habitats and thus affects the animals’ behavior.

The findings suggest that when it comes to conservation, it’s important to consider individual cultures — not just overall species populations.

“Each population, each community, even each generation of chimpanzees is unique,” primatologist Cat Hobaiter, who is not one of the study’s authors, told *The Atlantic*. “An event might only have a small impact on the total population of chimpanzees, but it may wipe out an entire community — an entire culture.”

And that consideration isn’t just limited to chimpanzees. Animals like whales, dolphins and orangutans have also displayed evidence of cultures.

6. Типовые промежуточные тесты.

Типовой промежуточный тест 1 семестр

Grammar activities

Test 1. Participle. Choose the right variant:

1. Amid _____ (1 to rise) awareness of the impact businesses can have on the environment, companies of every size and type have begun _____ (2 to implement) environmental sustainability initiatives.

- 1) a. rise b. rising c. risen
2) a. implementing b. implement c. to implement

2. Some companies are taking a big-picture approach by _____ (1 to examine) every step of their product lifecycle and applying green supply chain management practices across the board.

- 1) a. examine b. examining c. examined
2) a. apply b. applying c. applied

3. While improving working conditions and protecting the environment are certainly admirable goals, they haven also proven to be good business strategies.

- 1) a. examine b. examining c. examined
2) a. apply b. applying c. applied

4. Most of the products are _____ (1 to export) to _____ (2 to develop) countries.

- 1) a. exporting b. exported
2) a. developing b. developed

5. For example, implementing environmentally sustainable practices has the potential to eliminate waste and generate cost savings, _____ to a stronger bottom line.

- 1) a. leading b. led

6. All _____ machines are in the field of green supply chain management.

- a) washing b) washed

Test 2. Gerund. Choose the right variant.

1. I really appreciate _____ this opportunity. I’ll do my best.

- a) giving b) being given c) having been given
2. Our teacher suggests _____ test next week.
- a) writing b) being written c) having been written
3. He was clever enough _____ in this delicate situation.
- a) avoiding, speaking b) to avoid, to speak
- c) avoiding, to speak d) to avoid, speaking
4. I wonder if there is any use _____ the results.
- a) trying, improving b) trying, to improve
- c) to try, to improve d) to try, improving
5. She strongly objected to our _____ a joint report.
- a) making b) being made c) having been made

Test 3. Choose the right tense form:

Some companies _____ (to take) a big-picture approach by examining every step of their product lifecycle and applying green supply chain management practices across the board.

Translation activities

Translate the sentences into Russian.

- eBay Eco-Initiatives. One example of a company with an environmental sustainability focus built right into its business plan is eBay.
- The online site makes it easy for people all over the world to exchange and reuse goods rather than throwing them away, thereby lengthening the lifespan of these products so they don't wind up as trash.

Реферирование текстов по специальности

Прочитайте текст и выполните задания.

The atmosphere is the layer of gas that surrounds the earth. The composition of the atmosphere changes with the distance from the earth's surface. The layer near the surface - the troposphere - contains the air we breathe, which is 78 percent nitrogen, 21 percent oxygen, 0.03 percent carbon dioxide, and 1 percent inert gases such as argon. Water vapor, small particles of dust, and tiny quantities of other gases such as helium, ozone, nitrous oxide, and methane, are also present. The stratosphere contains thin, cold air with less oxygen and no dust or water vapor. The ionosphere contains very thin air and electrically charged particles which reflect electromagnetic waves.

The lower part of the stratosphere contains a band of warm gas called the ozone layer. Ozone absorbs very shortwave ultraviolet radiation - that is, the harmful, burning rays from the sun. These rays kill plants and cause burns, skin cancer, and cataracts in animals and man. The ozone layer protects us from these damaging effects. The man-made chemicals chlorofluorocarbons break up ozone molecules. Chlorofluorocarbons occur in some aerosols (such as deodorants, hair sprays and cleaning fluids), expanded polystyrene (such as fast-food packaging) and the cooling mechanism of refrigerators. Most scientists now accept that CFCs are very bad for the environment. They have already caused a large hole in the ozone layer.

Another environmental problem in the atmosphere is the green-house effect. The sun's energy arrives as short-wave radiation; some of this is reflected away in the clouds and upper atmosphere and some is absorbed into the ground. About 5 percent of the energy are reflected off the earth's surface as long-wave radiation. Certain gases in the atmosphere - especially carbon dioxide, methane and CFCs - reflect this long-wave radiation back to earth. The glass in a greenhouse conserves heat by the same principle, so these gases known as "greenhouse gases". The greenhouse effect is very important. But an increase in the greenhouse effect may lead to global warming, with disastrous consequences.

A rise in the earth's average temperature of only one or two degrees would probably melt large expanses of ice in the Arctic and the Antarctic and raise sea levels. Sea levels throughout the world are already rising by about two millimeters a year. Many heavily populated regions, such as Bangladesh, the Nile delta, the Netherlands and Indonesia, would be permanently flooded. Some islands, such as Maldives in the Pacific, might disappear completely.

Exercise 1. Give a title to the article. Give the main idea of the text.

Exercise 2. Ask questions to find the main idea of each paragraph.

Exercise 3. Write out the answers to each of the above questions in complete sentences.

1. The atmosphere ...
 - a. is the layer of gas which contains thin, cold air with less oxygen and no dust or water vapor;
 - b. contains water vapor, small particles of dust, and tiny quantities of other gases;
 - c. a composition of gases that surround the earth.
2. Which layer of gas is the nearest to the earth?
 - a. the ionosphere;
 - b. the troposphere;
 - c. the stratosphere;
3. Where is the ozone layer situated?
 - a. in the stratosphere;
 - b. in the troposphere;
 - c. in the ionosphere.
4. What destructs the ozone layer?
 - a. shortwave ultraviolet radiation;
 - b. harmful, burning rays from the sun;
 - c. man-made chemicals.
5. What is meant by greenhouse effect?
 - a. the conservation of heat with the help of some gases;
 - b. the reflection of the sun's energy in the clouds;
 - c. the absorption of short-wave radiation into the ground.

Exercise 4. Write a one paragraph summary using the following forms.

The present paper ... goes (inquires) into / focuses on / deals with... It is reported that ... The text gives valuable information on... Much attention is given to... It is shown that... The first part reviews / describes / clarifies / outlines ... Summing up the following conclusions can be made:...

Exercise 5. Make a brief abstract in Russian (3 sentences, no more than 70 words).

Типовой промежуточный тест 2 семестр

Grammar activities

Test 1. Translate Passive Forms.

- a. With another three **endangered** California condors **dead** from lead poisoning in Arizona, conservation advocates are ramping up their call to phase out the use of lead ammunition.
- b. Seven of the birds have died since December, and three of the deaths **are definitively linked** with lead poisoning, according to the Center for Biological Diversity.
- c. It's clear that voluntary efforts to reduce lead ammunition use around the Grand Canyon **aren't getting the job done**.

Test 2. Find and translate the modal verb.

- a. Three condors **may** not sound like many, but that's already 5 percent of the entire Arizona-Utah population, which numbers only about 80 birds.
- b. Each year, up to half of the Grand Canyon condors **must** be given life-saving, emergency blood treatment for lead poisoning.
- c. Given the wide availability lowered cost and high performance of lead-free ammunition, these states **should** admit it's time to require nontoxic rounds for hunting.
- d. When the cause of death **could** be determined, more than half were due to poisoning from ingesting lead ammunition fragments left in carcasses of shot game.

Test 3. Form an adjective from a verb.

"The _____ (to continue) deaths of Grand Canyon condors from lead poisoning is _____ (to prevent) if we finally treat toxic lead ammunition as we did lead paint and leaded gasoline," said Jeff Miller, with the Center for Biological Diversity.

Translation activities

Translate the sentences into Russian.

Despite the basic biological, chemical, and physical similarities found in all living things, a diversity of life exists not only among and between species but also within every natural population.

The phenomenon of diversity has had a long history of study because so many of the variations that exist in nature are visible to the eye.

The fact that organisms changed during prehistoric times and that new variations are constantly evolving can be verified by paleontological records.

The total number of animal and plant species is estimated at between 2,000,000 and 4,500,000; authoritative estimates of the number of extinct species range from 15,000,000 up to 16,000,000,000.

We know national parks to be abused and subjected to tourism in such a volume and pattern as to degrade and destroy the very natural resources whose preservation is legally required.

Реферирование текстов по специальности

Прочитайте текст и выполните задания.

The economic environment consists of factors that affect consumer purchasing power and spending patterns. Dominant categories of cars in the United States in the early 2000s were pick-up trucks and sport utility vehicles (SUVs).

America's big three motor companies, GM, Ford, and Chrysler focused heavily on this segment and produced many trucks and SUVs for their consumers. The market for these categories became so large and popular; they became cash cows for the "Big Three."

Later in the decade though, consumers faced an increase in gas prices, environmental/green-eco agencies raised awareness, and the start of the recession took place, ultimately diminished the demand and consumption of large vehicles. The lasting effects these events brought have changed consumers spending patterns.

With the 2010 North American International Auto Show just wrapping up, the main buzz was all about small cars. Smaller, fuel-efficient cars have been gaining popularity among consumers and many automobile industries have noticed. Paying for a large vehicle and constantly refilling its gas tank is not considered practical anymore. The "Big Three" quickly had to go back to the drawing boards and design smaller cars that not only provided good value and fuel economy, but also appealed to the public.

Ford has been hyping up their new direction of the company, by marketing their new line up of small cars that are appealing in style, yet very fuel efficient. For example, the Fiesta which was originally designed for the European market is finally making its way to the United States; the great success it has had over seas has made Ford realize its possible potential here.

Exercise 1. Give a title to the article. Give the main idea of the text.

Exercise 2. Ask questions to find the main idea of each paragraph.

Exercise 3. Make a summary using the following forms:

The ... subject (matter) ... of this paper is ...

The present paper ... goes (inquires) into / focuses on / deals with ...

The aim of this paper is to find some optimal ways of ...

This paper aims at...

Writing this paper there were two / three goals in mind...

The ... chief / general ... aim is...

In this paper, ... attempt to clarify the relation of...

To do so, ... first present... then attempt to show that... The structure of this course paper is as follows. The first part reviews / describes / clarifies / outlines...

Part 2 (section 2) dwells on / enlarges upon / shows that / argues that... The final part proposes / summarizes / spells out in detail...

Summing up the results of the conducted analysis the following conclusions can be made:...

I want to end this paper... by repeating / stressing / emphasizing / noting that...

In conclusion, ... is considered. / It is concluded that...

Thus, we can make a conclusion (a conclusion can be made) that...

From the results it is concluded that...

It may be noted (stated) that...

Exercise 4. Make a brief abstract in Russian (3 sentences, no more than 70 words)

Типовой промежуточный тест 3 семестр

Задание 1

Заполните пропуски.

1. There used to be many animals a century ago. We can't see them now because they are _____.
a. ill b. extinct c. endanger d. frozen

2. There are a lot of _____ in the parks and squares of almost all cities and towns and people like to feed them.
a. cocks b. dodoes c. pigeons d. penguins

3. The world of nature is rich. There are a lot of usual and unusual _____ of animals in it.
a. species b. creatures c. example d. numbers

4. Flies, ants, butterflies, ladybirds (божьи коровки), beetles are _____, tortoises, snakes and crocodiles are _____.
a. birds, insects b. insects, reptiles c. mammals, reptiles d. reptiles, insects

5. They were interested in fishes and were very much surprised to find out that whales are _____.
a. reptiles b. fishes c. mammals d. insects

6. He is seriously ill, there is no hope because people are not able to _____ this disease.
a. cure b. damage c. include d. influence

7. We should protect rivers, oceans, seas and lakes, forests, fields and mountains because it is the _____ of many animals, the place where they live.
a. environment b. countryside c. habitat d. habit

8. People didn't think much about environment and big plants, factories and cars _____ atmosphere and water, so it is dangerous to live in cities nowadays.
a. destroy b. polluted c. cured d. ruin

9. Playing with matches may _____ a great fire. Be careful!
a. have b. destroy c. cause d. makes

10. The pollution of the air may cause the _____ of the ozone layer.
a. shortage b. destruction c. endanger d. poison

Задание 2

Выберите единственно правильный вариант ответа.

1. My little sister isn't afraid of dogs. Neither _____ my little brother.
a. does b. is c. do d. isn't
2. We didn't travel on board the ship last holidays. Neither _____ our friends.
a. do b. are c. did d. travel
3. We have not got much time left. Neither _____ they.
a. has b. are c. have d. got
1. She liked ___ of the two presents I gave her.
a. either b. both c. all d. none
2. 'I don't like chocolate ice-cream.'
a. but b. neither c. either d. so
6. 'I love playing tennis.' '_____'.'
a. nor I do b. neither do I c. so do I d. so I do
7. We all failed the exam because _____ of us had studied for it.
a. both b. either c. neither d. none
8. Ann _____ travel a lot but she doesn't go away very often now.
a. used b. is used to c. got used d. used to
9. This building is now a furniture shop. It _____ be a cinema.
a. used b. got used c. used to d. is used to
10. Better Botter _____ visit Buckingham Palace every year.
a. used to b. is used to c. got used d. used

ПРОМЕЖУТОЧНАЯ АТТЕСТАЦИЯ – ЗАЧЕТ/ЭКЗАМЕН.

Структура и требования к зачету/экзамену.

2 семестр

Письменно:

1. Письменный перевод научного текста с иностранного языка на русский (2500 п.з.) (Время выполнения 90 минут) (Проверка сформированности умений письменного перевода)
2. Написание делового письма.

Устно:

1. Реферирование на иностранном языке научного текста по профилю подготовки (2500-3000 п.з.)

3 семестр

Письменно:

1. Письменный перевод научного текста с иностранного языка на русский (2500 п.з.) (Время выполнения 90 минут) (Проверка сформированности умений письменного перевода).

Устно:

1. Реферирование на иностранном языке научного текста по профилю подготовки (2500-3000 п.з.)

2. Представление доклада по теме магистерской диссертации (с презентацией) (время – 10 минут).

3. Беседа по теме магистерской диссертации.

* Критерии оценивания ответов см. в разделе “Критерии оценивания”.

Примеры формулировки билета 2-3 семестров.

2 семестр

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ
ВЫСШЕГО ОБРАЗОВАНИЯ

РОССИЙСКИЙ УНИВЕРСИТЕТ ДРУЖБЫ НАРОДОВ ИМЕНИ ПАТРИСА ЛУМУМБЫ
(РУДН)

Институт Экологии

Кафедра иностранных языков экологического факультета

Иностранный язык (факультатив) (магистратура)

Билет № 1

1. Выполните письменный перевод научного текста 1 с иностранного языка на русский.
2. Выполните устное реферирование научного текста 2.
3. Напишите деловое письмо по заданной ситуации.

Заведующий кафедрой
иностранных языков

Н.Г. Валеева

3 семестр

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ
ВЫСШЕГО ОБРАЗОВАНИЯ

РОССИЙСКИЙ УНИВЕРСИТЕТ ДРУЖБЫ НАРОДОВ ИМЕНИ ПАТРИСА ЛУМУМБЫ
(РУДН)

Институт Экологии

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Иностранный язык (факультатив) (магистратура)

Билет № 1

1. Выполните письменный перевод научного текста 1 с иностранного языка на русский.
2. Выполните устное реферирование научного текста 2.
3. Представьте доклад по теме магистерской диссертации (с презентацией)
4. Ответьте на вопрос коллег по представленному докладу, отстаивая и аргументируя свою точку зрения.

Заведующий кафедрой
иностранных языков

Н.Г. Валеева

Типовые материалы к билетам для промежуточной аттестации по дисциплине «Иностранный язык (факультатив)» для магистрантов 1 курса

1. Текст для письменного перевода с английского языка на русский язык (2500 п.з.).

THE GREAT GREEN WALL INITIATIVE

In Africa, scientists are hard at work restoring land once rich with biodiversity and vegetation. Eleven countries in the Sahel-Sahara region—Djibouti, Eritrea, Ethiopia, Sudan, Chad, Niger, Nigeria, Mali,

Burkina Faso, Mauritania, and Senegal—have joined to combat land degradation and restore native plant life to the landscape.

In recent years, northern Africa has seen the quality of arable land decline significantly due to climate change and poor land management.

Uniting under the banner of the “Great Green Wall” initiative, national and regional leaders hope to reverse this trend.

The bulk of the work on the ground was originally slated to be concentrated along a stretch of land from Djibouti (in the east) to Dakar, Senegal (in the west) an expanse 15 kilometers wide and 7,775 kilometers long. The project has since expanded to include countries in both northern and western Africa.

Land degradation typically stems from both human-related and natural factors; overfarming, overgrazing, climate change, and extreme weather are the most common causes.

Beyond affecting land and the natural environment, land degradation poses serious threats to agricultural productivity, food security, and quality of life.

Nowhere is this issue more urgent than in sub-Saharan Africa, where an estimated 500 million people live on land undergoing desertification, the most extreme form of land degradation.

Jean-Marc Sinnassamy is a senior environmental specialist with the Global Environment Facility (GEF). He helps manage a program developed under the Great Green Wall initiative with countries in the Sahel and West Africa.

The GEF has been with the initiative since the beginning, helping to convene country leaders at the headquarters of the United Nations Convention to Combat Desertification in Bonn, Germany, in February 2011.

The World Bank and other organizations focused on global development and the environment provide financial and technical support.

For Sinnassamy, the partnership represents a unique opportunity to work across the region with a solid political base.

“Here, we saw political leaders, heads of state, ministers in different countries wanting to work on common environmental issues and wanting to tackle land degradation issues together,” he says. “. . . For us, this is a political blessing. We have to respond to this demand, and we have to capitalize on that.”

Integrated Landscape Approach

Beyond the project’s strong political foundation, its carefully crafted approach brings environmental benefits both locally and globally. The initiative uses an “integrated landscape approach” that allows each country to address land degradation, climate change adaptation and mitigation, biodiversity, and forestry within its local context. . .

<https://www.thegef.org/news/great-green-wall>

3. Текст для устного реферативного перевода с английского языка на русский (2500-3000 п.з.).

Air pollution at sea comes from various sources – mainly big urban centres, land transportation and shipping. Italy Cruise ships – massive floating hotels – sail all around the coasts of Europe. But this luxurious fleet doesn’t just carry passengers: it also helps to drive science forward.

Jens Hjørth, senior scientist in air pollution and atmospheric chemistry, at the European Commission’s Joint Research Centre (JRC) explained: “There’s quite a high level of air pollution over the Mediterranean. And there’s a lack of data about this, we don’t know enough. So we need more observations. And this ship is a very good platform for making observations, because it covers a large area, particularly around the coast where we often have air pollution problems.”

Measuring air pollution at sea has to be done on board a vessel, but running a dedicated ship would be prohibitively expensive.

So scientists from the JRC asked for free cabin on a commercial cruise ship – and got one.

The scientists come aboard to carry out maintenance but leave before the cruise starts: all the measurements are automatic. A high resolution imagery system for the monitoring of surface floating marine litter has been tested on “Costa Pacifica”.

Scientists at the JRC interact with the ship’s monitoring station remotely.

Particles have been sampled during campaigns for subsequent chemical analysis.

Pedro Miguel Rocha e Abreu, an air quality researcher at the JRC explained: “With this data acquisition system we can access the data easily, without having to be physically present on the ship, which is hundreds of miles away from here. And that makes our work much simpler.”

Jens Hjorth said: “It has a route in the Western Mediterranean. It starts in Savona, then it goes to Barcelona, Palma, Malta, Catania, Naples and then back to Savona. It makes this trip every week. We have been taking these kinds of measurements since 2006, always in the same area, following more or less the same route. This gives us a data set that allows us to look at change, to see how this situation is changing from year to year.”

Jens Hjorth explained: “The air is taken in through two tubes on deck. One measures gas and the other measures particles. And then it’s analysed for SO₂, for NO_X, and for soot. And then we have an instrument for measuring carbon monoxide, and we also measure ozone.”

The station takes air samples non-stop, at sea and in port. The data, sent by satellite Internet to the JRC’s headquarters in Ispra, is used to feed and check computer models that simulate air pollution.

High levels of ozone and particulate matter cause risks to human health in many parts of the Mediterranean areas. Ozone causes also damage to vegetation. The concentrations of ozone are particularly high over the Mediterranean because its lifetime over the sea is longer than over the continent.

<http://www.apice->

[project.eu/img_web/pagine/files/Tessalonico/Annex03_29Jun2011__Hjorth_JRC.pdf](http://www.apice-project.eu/img_web/pagine/files/Tessalonico/Annex03_29Jun2011__Hjorth_JRC.pdf)

3. Напишите деловое письмо-запрос информации для получения сведений об условиях приема на работу.

Типовые материалы к билетам для промежуточной аттестации по дисциплине «Иностранный язык (факультатив)» для магистрантов 2 курса

1. Текст для письменного перевода с английского языка на русский язык (2500 п.з.). Integrated Landscape Approach - The Great Green Wall initiative.

While trees and forests are only part of the focus of the Great Green Wall initiative, many in the media have cast the project as solely a tree-planting project and an attempt to halt the southward expansion of the Sahara Desert.

It is much more nuanced than simply planting a belt of trees across the continent of Africa.

Beyond the project’s strong political foundation, its carefully crafted approach brings environmental benefits both locally and globally. The initiative uses an “integrated landscape approach” that allows each country to address land degradation, climate change adaptation and mitigation, biodiversity, and forestry within its local context.

“In this case, working to combat land degradation is the best way to address both very local issues and improve the global environment,” Sinnassamy, senior environmental specialist with the Global Environment Facility (GEF), says.

“We are working with the land, which is the basis of livelihood in these communities. We are working with people to improve soil quality, which improves crop yield and in turn agricultural production and the overall quality of life in the community. These very local benefits are also a way to generate global benefits for water, land, and nature.”

In the end, Sinnassamy hopes the region as a whole will be composed of a “mosaic of landscapes” that increases biodiversity and maintains native flora as part of agricultural land. Each participating country has its own individual goals, which include reducing erosion, diversifying income, increasing crop yield, and improving soil fertility.

In Niger, Mali, and Burkina Faso natural regeneration managed by farmers has yielded great results. “We want to replicate and scale up these achievements across the region”, he says. “It’s very possible to restore trees to a landscape and to restore agroforestry practices without planting any trees. This is also a sustainable way of regenerating agroforestry and parkland.”

A misperception Sinnassamy points to is that the Sahara Desert is not, in fact, expanding.

“We are not fighting the desert,” he says. “In the majority of the areas we are working in these 11 countries, the desert is not advancing. The Sahara Desert is a very stable ecosystem. Of course, there are some areas on the margins – for instance in Senegal, Mauritania, and Nigeria – where there are some sand movements. But from a geographic perspective, over time the desert has been relatively stable in this area.” <https://www.thegef.org/news/great-green-wall>

2. Текст для устного реферативного перевода с английского языка на русский (2500-3000 п.з.). What is becoming clear is that eco-friendly materials are being used not only in large-scale production, but also in much smaller projects.

It’s time for a bit of cooking at a research Institute in Brindisi, Southern Italy.

The recipe is simple: a splashing of natural textiles, a good dose of partially-bio resin and a pinch of bio-additives and enzymes.

Stir well and place your mixture in an oven for a few hours at 60 degrees Celcius.

“It is made out of linen fabrics and natural resins. It is a sustainable, completely organically derived product,” says Andrea Ferrari, coordinator at the engineering firm D’Appolonia.

It is, in fact, a new composite structure born out of renewable materials.

And it is these scientists’ dream that this new ecomaterial will soon replace plastic composites.

“We are convinced that very soon we will be able to replace fossil-derived materials with exclusively natural materials. We’re talking about materials born out of by-products like cotton, linen or hemp, or resins made with sugar cane or other crops which are not aimed at the food market,” says Andrea Ferrari.

Before it hits the market, the new ecomaterial’s mechanical performances are fully tested and compared with those of carbon and other classic composites.

Tests include fracture toughness, elasticity and plasticity.

“As far as we can see, the natural composite has inferior mechanical properties compared to classic composites. For instance, it is less rigid and shows less mechanical strength than carbon composite,” says Andrea Salomi, a materials engineer at Cetma research centre.

“But these mechanical characteristics don’t mean that the natural composite will be more difficult to use than carbon composites. It depends on the type of final product that we want to develop with it,” he adds. “Research is ongoing to increase the quality of the natural composite. In a year’s time, we will have a top quality product. And it shouldn’t be that expensive. The natural composite will cost between 20 and 25 percent more than current plastic composites. That would mean a price increase of just 30 of 40 cents per kilo for natural composites,” says composite manufacturer Guy Simmonds. It’s hoped this new biocomposite could become a market reality in the next three to four years.

Researchers are not short of ideas. Various concepts are currently under study. The new biocomposite could be used to equip cars, to build construction panels or to assemble furniture or musical instruments.

Taking care of the environment is one aspect of design and manufacture that has become a fact of life for major producers. Creating new materials that are both ecologically sound and fit for purpose is slowly becoming the major focus for companies around the world.

As this focus shifts, we’re beginning to see imaginative new material created from a variety of raw materials. So, here we go then: a list of five eco materials that will change the world:

1) Mushrooms can be used in the production of car bumpers, dashboards and side doors.

Since the mycelium product is grown rather than made, complications can develop along the way. Rigorous testing has to be in place to ensure the mycelium grows at an even spread and does not leave air pockets inside the product.

<http://ecocycle.org/ecofacts>

3. Представьте доклад по теме магистерской диссертации (с презентацией)

4. Ответьте на вопрос коллег по представленному докладу, отстаивая и аргументируя свою точку зрения.

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