

МИНИСТЕРСТВО СЕЛЬСКОГО ХОЗЯЙСТВА РОССИЙСКОЙ ФЕДЕРАЦИИ
Федеральное государственное бюджетное образовательное учреждение
высшего образования
«КУБАНСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ
имени И.Т. ТРУБИЛИНА»

Факультет прикладной информатики
Иностранных языков



УТВЕРЖДЕНО

Декан

Замотайлова Д.А.

Протокол от 23.04.2026 № 6

**РАБОЧАЯ ПРОГРАММА ДИСЦИПЛИНЫ (МОДУЛЯ)
«ИНОСТРАННЫЙ ЯЗЫК. АНГЛИЙСКИЙ ЯЗЫК»**

Уровень высшего образования: бакалавриат

Направление подготовки: 09.03.03 Прикладная информатика

Направленность (профиль) подготовки: Менеджмент ИТ-проектов, управление жизненным циклом информационных систем

Квалификация (степень) выпускника: бакалавр

Формы обучения: очная, заочная

Год набора (приема на обучение): 2026

Срок получения образования: Очная форма обучения – 4 года
Заочная форма обучения – 4 года 8 месяца(-ев)

Объем: в зачетных единицах: 9 з.е.
в академических часах: 324 ак.ч.

Разработчики:

Доцент, кафедра иностранных языков Карипиди А.Г.

Рабочая программа дисциплины (модуля) составлена в соответствии с требованиями ФГОС ВО по направлению подготовки 09.03.03 Прикладная информатика, утвержденного приказом Минобрнауки от 19.09.2017 № 922, с учетом трудовых функций профессиональных стандартов: "Специалист по информационным системам", утвержден приказом Минтруда России от 13.07.2023 № 586н; "Руководитель проектов в области информационных технологий", утвержден приказом Минтруда России от 27.04.2023 № 369н; "Руководитель проектов в области информационных технологий", утвержден приказом Минтруда России от 18.11.2014 № 893н; "Специалист по информационным системам", утвержден приказом Минтруда России от 18.11.2014 № 896н.

Согласование и утверждение

№	Подразделение или коллегиальный орган	Ответственное лицо	ФИО	Виза	Дата, протокол (при наличии)
1	Иностранных языков	Заведующий кафедрой, руководитель подразделения, реализующего ОП	Непшекуева Т.С.	Согласовано	23.03.2026, № 10

1. Цель и задачи освоения дисциплины (модуля)

Цель освоения дисциплины - Целью освоения дисциплины «Иностранный язык» является повышение исходного уровня владения иностранным языком, достигнутого на предыдущей ступени образования, и овладение обучающимися необходимым и достаточным уровнем иноязычной коммуникативной компетенции для решения социально-коммуникативных задач в различных областях профессиональной, научной, культурной и бытовой сфер деятельности, при общении с зарубежными партнерами, а также для дальнейшего самообразования.

Задачи изучения дисциплины:

- – воспитание толерантности и уважения к духовным ценностям разных стран и народов ;
- – развитие когнитивных и исследовательских умений с использованием ресурсов на иностранном языке;;
- – развитие информационной культуры;;
- – расширение кругозора и повышение общей гуманитарной культуры студентов;;
- – повышение уровня учебной автономии, способности к самообразованию.

2. Планируемые результаты обучения по дисциплине (модулю), соотнесенные с планируемыми результатами освоения образовательной программы

Компетенции, индикаторы и результаты обучения

УК-4 Способен осуществлять деловую коммуникацию в устной и письменной формах на государственном языке российской федерации и иностранном(ых) языке(ах)

УК-4.1 Выбирает на государственном и иностранном (-ых) языках коммуникативно приемлемые стиль делового общения, вербальные и невербальные средства взаимодействия с партнерами

Знать:

УК-4.1/Зн1 Методику выбора на государственном и иностранном (-ых) языках коммуникативно приемлемых стилей делового общения, вербальных и невербальных средств взаимодействия с партнерами

Уметь:

УК-4.1/Ум1 Выбирать на государственном и иностранном (-ых) языках коммуникативно приемлемые стили делового общения, вербальные и невербальные средства взаимодействия с партнерами

Владеть:

УК-4.1/Нв1 Методикой выбора на государственном и иностранном (-ых) языках коммуникативно приемлемых стилей делового общения, вербальных и невербальных средств взаимодействия с партнерами

УК-4.3 Ведет деловую переписку, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках

Знать:

УК-4.3/Зн1 Формы деловой переписки, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках

Уметь:

УК-4.3/Ум1 Вести деловую переписку, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках

Владеть:

УК-4.3/Нв1 Способностью вести деловую переписку, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках

УК-4.4 Демонстрирует интегративные умения использовать диалогическое общение для сотрудничества в академической коммуникации общения: – внимательно слушая и пытаясь понять суть идей других, даже если они противоречат собственным воззрениям; – уважая высказывания других как в плане содержания, так и в плане формы; – критикуя аргументированно и конструктивно, не задевая чувств других; – адаптируя речь и язык жестов к ситуациям взаимодействия

Знать:

УК-4.4/Зн1 Интегративные умения для использования диалогическое общение для сотрудничества в академической коммуникации общения

Уметь:

УК-4.4/Ум1 Демонстрировать интегративные умения использовать диалогическое общение для сотрудничества в академической коммуникации общения

Владеть:

УК-4.4/Нв1 Способностью интегративного умения использовать диалогическое общение для сотрудничества в академической коммуникации общения

УК-4.5 Демонстрирует умение выполнять перевод профессиональных текстов с иностранного (-ых) на государственный язык и обратно

Знать:

УК-4.5/Зн1 Основы перевода профессиональных текстов с иностранного (-ых) на государственный язык и обратно

Уметь:

УК-4.5/Ум1 Выполнять перевод профессиональных текстов с иностранного (-ых) на государственный язык и обратно

Владеть:

УК-4.5/Нв1 Умениями по выполнению перевод профессиональных текстов с иностранного (-ых) на государственный язык и обратно

3. Место дисциплины в структуре ОП

Дисциплина (модуль) «Иностранный язык» относится к обязательной части образовательной программы и изучается в семестре(ах): Очная форма обучения - 1, 2, 3, 4, Заочная форма обучения - 1, 2, 3, 4.

В процессе изучения дисциплины студент готовится к решению типов задач профессиональной деятельности, предусмотренных ФГОС ВО и образовательной программой.

4. Объем дисциплины (модуля) и виды учебной работы

Очная форма обучения

Период	удоемкость сы)	удоемкость ЭТ)	ая работа всего)	ая контактная (часы)	(часы)	ые занятия сы)	е занятия сы)	ьная работа сы)	ая аттестация сы)
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обучения	Общая тру (часы)	Общая тру (ЗЕТ)	Контактн (часы)	Внеаудиторная работа	Зачет	Лабораторн (часы)	Лекционн (часы)	Самостоятел (часы)	Промежуточ (часы)
Первый семестр	72	2	19	1		16	2	53	Зачет
Второй семестр	72	2	17	1		16		55	Зачет
Третий семестр	72	2	33	1		30	2	39	Зачет
Четвертый семестр	108	3	33	1		32		48	Экзамен (27)
Всего	324	9	102	4		94	4	195	27

Заочная форма обучения

Период обучения	Общая трудоемкость (часы)	Общая трудоемкость (ЗЕТ)	Контактная работа (часы, всего)	Внеаудиторная контактная работа (часы)	Зачет (часы)	Лабораторные занятия (часы)	Лекционные занятия (часы)	Самостоятельная работа (часы)	Промежуточная аттестация (часы)
Первый семестр	72	2	7	1		4	2	65	Зачет
Второй семестр	72	2	5	1		4		67	Зачет
Третий семестр	72	2	9	1		8		63	Зачет
Четвертый семестр	108	3	9	1		8		99	Экзамен
Всего	324	9	30	4		24	2	294	

5. Содержание дисциплины (модуля)

5.1. Разделы, темы дисциплины и виды занятий (часы промежуточной аттестации не указываются)

Очная форма обучения

Наименование раздела, темы	Всего	Внеаудиторная контактная работа	Лабораторные занятия	Лекционные занятия	Самостоятельная работа	Планируемые результаты обучения, соотношенные с результатами освоения программы
Раздел 1. Компьютерная грамотность	71		16	2	53	УК-4.1 УК-4.3
Тема 1.1. Язык и Культура Видовременные формы глагола (Tenses)	4			2	2	УК-4.4 УК-4.5

Тема 1.2. Computer Literacy or FITness	4		2		2	
Тема 1.3. The Information Age	7		2		5	
Тема 1.4. Computers in Everyday Life	6		1		5	
Тема 1.5. Parts of a Computer	7		2		5	
Тема 1.6. The Four Functions of a Computer	6		1		5	
Тема 1.7. Types of Computers	6		1		5	
Тема 1.8. Central Processing Unit (CPU)	6		2		4	
Тема 1.9. Main Memory	5		1		4	
Тема 1.10. Input Devices	5		1		4	
Тема 1.11. Input Devices: the Eyes of your PC Scanners	5		1		4	
Тема 1.12. OutputDevices: DisplayScreens	5		1		4	
Тема 1.13. OutputDevices: Printers	5		1		4	
Раздел 2. Промежуточная аттестация	1	1				УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 2.1. Зачет	1	1				
Раздел 3. История интернета	71		16		55	УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 3.1. History of the Internet	16		4		12	
Тема 3.2. Internet Privacy	16		4		12	
Тема 3.3. Internet Services	15		4		11	
Тема 3.4. On-line Payment Systems	12		2		10	
Тема 3.5. E-mail Service	12		2		10	
Раздел 4. Промежуточная аттестация	1	1				УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 4.1. Зачет	1	1				
Раздел 5. Виды и свойства компьютеров	71		30	2	39	УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 5.1. Страдательный залог (PassiveVoice)	4		2	2		
Тема 5.2. Macs and PCs	10		4		6	
Тема 5.3. Linux	10		4		6	
Тема 5.4. Connecting to Clients and Employees	10		4		6	
Тема 5.5. Advertising and Marketing	10		4		6	
Тема 5.6. Automation	9		4		5	
Тема 5.7. Telecommuting	9		4		5	
Тема 5.8. Hackers and Viruses	9		4		5	
Раздел 6. Промежуточная аттестация	1	1				УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 6.1. Зачет	1	1				

Раздел 7. Программное обеспечение ПК	80		32		48	УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 7.1. Identity Theft	10		4		6	
Тема 7.2. Preventative Measures	10		4		6	
Тема 7.3. Anti-virus Software	10		4		6	
Тема 7.4. Cloud-Computers	10		4		6	
Тема 7.5. System Administration	10		4		6	
Тема 7.6. Education and research	10		4		6	
Тема 7.7. Artificial intelligence	10		4		6	
Тема 7.8. Entertainment and social networking	10		4		6	
Раздел 8. Промежуточная аттестация	1	1				УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 8.1. Экзамен	1	1				
Итого	297	4	94	4	195	

Заочная форма обучения

Наименование раздела, темы	Всего	Внеаудиторная контактная работа	Лабораторные занятия	Лекционные занятия	Самостоятельная работа	Планируемые результаты обучения, соответствующие результатам освоения программы
Раздел 1. Компьютерная грамотность	71		4	2	65	УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 1.1. Язык и Культура Видовременные формы глагола (Tenses)	8		1	2	5	
Тема 1.2. Computer Literacy or FITness	6		1		5	
Тема 1.3. The Information Age	6		1		5	
Тема 1.4. Computers in Everyday Life	6		1		5	
Тема 1.5. Parts of a Computer	5				5	
Тема 1.6. The Four Functions of a Computer	5				5	
Тема 1.7. Types of Computers	5				5	
Тема 1.8. Central Processing Unit (CPU)	5				5	
Тема 1.9. Main Memory	5				5	
Тема 1.10. Input Devices	5				5	
Тема 1.11. Input Devices: the Eyes of your PC Scanners	5				5	
Тема 1.12. OutputDevices: DisplayScreens	5				5	

Тема 1.13. OutputDevices: Printers	5				5	
Раздел 2. Промежуточная аттестация	1	1				УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 2.1. Зачет	1	1				
Раздел 3. История интернета	71		4		67	УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 3.1. History of the Internet	15		1		14	
Тема 3.2. Internet Privacy	15		1		14	
Тема 3.3. Internet Services	14		1		13	
Тема 3.4. On-line Payment Systems	14		1		13	
Тема 3.5. E-mail Service	13				13	
Раздел 4. Промежуточная аттестация	1	1				УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 4.1. Зачет	1	1				
Раздел 5. Виды и свойства компьютеров	71		8		63	УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 5.1. Страдательный залог (PassiveVoice)	8		1		7	
Тема 5.2. Macs and PCs	9		1		8	
Тема 5.3. Linux	9		1		8	
Тема 5.4. Connecting to Clients and Employees	9		1		8	
Тема 5.5. Advertising and Marketing	9		1		8	
Тема 5.6. Automation	9		1		8	
Тема 5.7. Telecommuting	9		1		8	
Тема 5.8. Hackers and Viruses	9		1		8	
Раздел 6. Промежуточная аттестация	1	1				УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 6.1. Зачет	1	1				
Раздел 7. Программное обеспечение ПК	107		8		99	УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 7.1. Identity Theft	14		1		13	
Тема 7.2. Preventative Measures	14		1		13	
Тема 7.3. Anti-virus Software	14		1		13	
Тема 7.4. Cloud-Computers	13		1		12	
Тема 7.5. System Administration	13		1		12	
Тема 7.6. Education and research	13		1		12	
Тема 7.7. Artificial intelligence	13		1		12	
Тема 7.8. Entertainment and social networking	13		1		12	
Раздел 8. Промежуточная аттестация	1	1				УК-4.1 УК-4.3 УК-4.4 УК-4.5
Тема 8.1. Экзамен	1	1				
Итого	324	4	24	2	294	

5.2. Содержание разделов, тем дисциплин

Раздел 1. Компьютерная грамотность

(Заочная: Лабораторные занятия - 4ч.; Лекционные занятия - 2ч.; Самостоятельная работа - 65ч.; Очная: Лабораторные занятия - 16ч.; Лекционные занятия - 2ч.; Самостоятельная работа - 53ч.)

Тема 1.1. Язык и Культура

Видовременные формы глагола (Tenses)

(Заочная: Лабораторные занятия - 1ч.; Лекционные занятия - 2ч.; Самостоятельная работа - 5ч.; Очная: Лекционные занятия - 2ч.; Самостоятельная работа - 2ч.)

Времена в английском языке и их образование

Тема 1.2. Computer Literacy or FITness

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 5ч.; Очная: Лабораторные занятия - 2ч.; Самостоятельная работа - 2ч.)

Изучения компьютерной грамотности

Тема 1.3. The Information Age

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 5ч.; Очная: Лабораторные занятия - 2ч.; Самостоятельная работа - 5ч.)

Информационный век

Тема 1.4. Computers in Everyday Life

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 5ч.; Очная: Лабораторные занятия - 1ч.; Самостоятельная работа - 5ч.)

Использование компьютера в повседневной жизни

Тема 1.5. Parts of a Computer

(Очная: Лабораторные занятия - 2ч.; Самостоятельная работа - 5ч.; Заочная: Самостоятельная работа - 5ч.)

Части компьютера

Тема 1.6. The Four Functions of a Computer

(Очная: Лабораторные занятия - 1ч.; Самостоятельная работа - 5ч.; Заочная: Самостоятельная работа - 5ч.)

Функции компьютера

Тема 1.7. Types of Computers

(Очная: Лабораторные занятия - 1ч.; Самостоятельная работа - 5ч.; Заочная: Самостоятельная работа - 5ч.)

Типы компьютеров

Тема 1.8. Central Processing Unit (CPU)

(Очная: Лабораторные занятия - 2ч.; Самостоятельная работа - 4ч.; Заочная: Самостоятельная работа - 5ч.)

Центральный процессор

Тема 1.9. Main Memory

(Очная: Лабораторные занятия - 1ч.; Самостоятельная работа - 4ч.; Заочная: Самостоятельная работа - 5ч.)

Тема 1.10. Input Devices

(Очная: Лабораторные занятия - 1ч.; Самостоятельная работа - 4ч.; Заочная: Самостоятельная работа - 5ч.)

Устройства ввода

Тема 1.11. Input Devices: the Eyes of your PC Scanners

(Очная: Лабораторные занятия - 1ч.; Самостоятельная работа - 4ч.; Заочная: Самостоятельная работа - 5ч.)

Использование сканера в работе ПК

Тема 1.12. OutputDevices: DisplayScreens

(Очная: Лабораторные занятия - 1ч.; Самостоятельная работа - 4ч.; Заочная: Самостоятельная работа - 5ч.)

Устройства вывода: экраны дисплея

Тема 1.13. OutputDevices: Printers

(Очная: Лабораторные занятия - 1ч.; Самостоятельная работа - 4ч.; Заочная: Самостоятельная работа - 5ч.)

Устройства вывода: принтеры

Раздел 2. Промежуточная аттестация

(Заочная: Внеаудиторная контактная работа - 1ч.; Очная: Внеаудиторная контактная работа - 1ч.)

Тема 2.1. Зачет

(Заочная: Внеаудиторная контактная работа - 1ч.; Очная: Внеаудиторная контактная работа - 1ч.)

По итогам изученного курса обучающиеся сдают зачет

Раздел 3. История интернета

(Заочная: Лабораторные занятия - 4ч.; Самостоятельная работа - 67ч.; Очная: Лабораторные занятия - 16ч.; Самостоятельная работа - 55ч.)

Тема 3.1. History of the Internet

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 14ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 12ч.)

История Интернета

Тема 3.2. Internet Privacy

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 14ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 12ч.)

Конфиденциальность в Интернете

Тема 3.3. Internet Services

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 13ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 11ч.)

Интернет-услуги

Тема 3.4. On-line Payment Systems

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 13ч.; Очная: Лабораторные занятия - 2ч.; Самостоятельная работа - 10ч.)

Онлайн платежные системы

Тема 3.5. E-mail Service

(Очная: Лабораторные занятия - 2ч.; Самостоятельная работа - 10ч.; Заочная: Самостоятельная работа - 13ч.)

Служба электронной почты

Раздел 4. Промежуточная аттестация

(Заочная: Внеаудиторная контактная работа - 1ч.; Очная: Внеаудиторная контактная работа - 1ч.)

Тема 4.1. Зачет

(Заочная: Внеаудиторная контактная работа - 1ч.; Очная: Внеаудиторная контактная работа - 1ч.)

По итогам изученного курса обучающиеся сдают зачет

Раздел 5. Виды и свойства компьютеров

(Заочная: Лабораторные занятия - 8ч.; Самостоятельная работа - 63ч.; Очная: Лабораторные занятия - 30ч.; Лекционные занятия - 2ч.; Самостоятельная работа - 39ч.)

Тема 5.1. Страдательный залог (PassiveVoice)

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 7ч.; Очная: Лабораторные занятия - 2ч.; Лекционные занятия - 2ч.)

Изучения грамматики (PassiveVoice)

Тема 5.2. Macs and PCs

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 8ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Персональный компьютер

Тема 5.3. Linux

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 8ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Линукс

Тема 5.4. Connecting to Clients and Employees

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 8ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Общение с клиентами и сотрудниками

Тема 5.5. Advertising and Marketing

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 8ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Реклама и маркетинг

Тема 5.6. Automation

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 8ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 5ч.)

Тема 5.7. Telecommuting

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 8ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 5ч.)

Удаленная работа

Тема 5.8. Hackers and Viruses

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 8ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 5ч.)

Хакеры и вирусы

Раздел 6. Промежуточная аттестация

(Заочная: Внеаудиторная контактная работа - 1ч.; Очная: Внеаудиторная контактная работа - 1ч.)

Тема 6.1. Зачет

(Заочная: Внеаудиторная контактная работа - 1ч.; Очная: Внеаудиторная контактная работа - 1ч.)

По итогам изученного курса обучающиеся сдают зачет

Раздел 7. Программное обеспечение ПК

(Заочная: Лабораторные занятия - 8ч.; Самостоятельная работа - 99ч.; Очная: Лабораторные занятия - 32ч.; Самостоятельная работа - 48ч.)

Тема 7.1. Identity Theft

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 13ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Кража личных данных

Тема 7.2. Preventative Measures

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 13ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Профилактические меры

Тема 7.3. Anti-virus Software

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 13ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Антивирусная программа

Тема 7.4. Cloud-Computers

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 12ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Облачное хранение ПК

Тема 7.5. System Administration

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 12ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Системное администрирование

Тема 7.6. Education and research

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 12ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Образование и исследования

Тема 7.7. Artificial intelligence

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 12ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Искусственный интеллект

Тема 7.8. Entertainment and social networking

(Заочная: Лабораторные занятия - 1ч.; Самостоятельная работа - 12ч.; Очная: Лабораторные занятия - 4ч.; Самостоятельная работа - 6ч.)

Entertainment and social networking

Раздел 8. Промежуточная аттестация

(Заочная: Внеаудиторная контактная работа - 1ч.; Очная: Внеаудиторная контактная работа - 1ч.)

Тема 8.1. Экзамен

(Заочная: Внеаудиторная контактная работа - 1ч.; Очная: Внеаудиторная контактная работа - 1ч.)

Итоговая проверка знаний

6. Оценочные материалы текущего контроля

Раздел 1. Компьютерная грамотность

Форма контроля/оценочное средство: Задача

Вопросы/Задания:

1. How many characters should a strong password be?

1. 4
2. 6
3. 8
4. 16

2. How should you start an email?

1. Write your name
2. Put a stamp on it
3. Put the date
4. Write the subject

3. What could you install on your computer in order to keep it safe and secure from viruses?

1. Download Malware
2. Download Spyware
3. Download an Anti-Virus program
4. Download Libre Office

4. Who created Microsoft?

Who created Microsoft?

5. Moving pictures in websites are usually called

Moving pictures in websites are usually called

6. Match the browser toolbar button with the function

Refresh / Reload - Displays the page you have set as your home page.

Home - Shows the latest version of the page.

Search - Prints the current page.

Bookmarks - Displays the web addresses you have chosen as your favourites.

Print - Opens the search panel.

7. Put the words in the right order:

The - 1

Digital - 2

to comprehend - 3

technology - 4

literacy - 5

and devices - 6

digital - 7

is - 8

ability - 9

8. Which of the following devices will you use to connect your computer to the Internet?

A. Printer

B. Scanner

C. Modem

D. Sound card

9. What is the Internet?

A. An electronic device for printing documents

B. A power backup source

C. A worldwide collection of computer networks

D. A software program installed on a computer

10. Any computer parts that you can actually touch are considered to be

Any computer parts that you can actually touch are considered to be

11. Put the words in the right order:

Communicate - 1

and sending - 2

by e-mail - 3

A lot - 4

other - 5

of people - 6

messages - 7

by writing - 8

with each - 9

12. Match the browser toolbar button with the function

Back - Displays the page you were on before.

Stop - Shows email options

Media - Opens the media bar, accessing internet radio, music, video etc.

History - Shows a list of the websites you have visited recently.

Mail - Stops a page from downloading

13. Unwanted advertising emails are popularly known as

Unwanted advertising emails are popularly known as

14. Which of these statements refer to Big Data?

1. huge in volume, consisting of terabytes or petabytes of data;

2. high in velocity, being created in or near real time;

3. exhaustive in scope, striving to capture entire populations or systems;

4. limited in access, can be reached by a small group of professionals

15. Match the words with their definitions.

Data collection - arranging data into table format for analysis

stock management - double-checking and cleaning data

data validation - data about product specifications, details and design

data tabulation - gathering raw data
production - data about quantity of product in storage

16. What is unauthorized transfer or copying ?

1. Copying or transferring software without the permission of the user
2. Copying or transferring software with the permission of the user
3. Hacking into a user's system
4. Sending an invitation letter

Раздел 2. Промежуточная аттестация

Форма контроля/оценочное средство:

Вопросы/Задания:

.

Раздел 3. История интернета

Форма контроля/оценочное средство: Задача

Вопросы/Задания:

1. What is the short cut to copy?

1. CTRL C
2. CTRL R
3. CTRL K
4. CTRL G

2. Who created Apple and died October 5th 2011?

1. Steve Jobs
2. Steve John
3. Steve Song
4. Steve Nash

3. What is the other name for Spreadsheet?

1. Excel
2. Word
3. Powerpoint
4. Photoshop

4. Which leading computer software business created programs like Spread Sheet, Word and Power point?

1. Google
2. Apple
3. Microsoft
4. DELL

5. The largest key on the Keyboard is:

1. the Shift key
2. the Space key
3. the Caps Lock key
4. the Ctrl key

6. Which of the items is an input device?

1. Computer Monitor
2. Keyboard
3. Display Board
4. Overhead Projector

7. Should you encrypt confidential data?

1. Yes
2. No
3. Not sure
4. Not necessarily

8. The other name for a Hard disk is:

1. Compact Disc
2. Fixed Disk
3. Hard Drive Disk
4. Floppy Disk

9. What are online threats ?

1. They are types of viruses which can harm your computer
2. They help your computer in being safe
3. They are different types of ICT Shortcuts
4. They help your computer to operate fast

10. Which is the best program to use to write a letter?

1. Microsoft Word
2. Microsoft Excel
3. Microsoft Note
4. Adobe Photoshop

11. The process of starting or restarting a computer is called:

1. Start up point
2. Booting
3. Connecting
4. Resetting

12. Match up what these companies made:

Microsoft - IPAD

Windows - Acrobat Distiller

Apple - Word

Adobe - Movie Maker

13. Put the words in the right order:

That develops - 1

app used - 2

Mentimeter is - 3

with real-time - 4

a Swedish - 5

feedback. - 6

company - 7

presentations - 8

to create - 9

14. The screen and the keyboard is part of the hardware.

The operating system is part of the

The screen and the keyboard is part of the hardware.

The operating system is part of the

15. Match the words with the definitions:

Format - the style of the typed characters on a document

template - blank layout for certain types of documents

document - a file created on a word processing program

layout - the way that items are arranged on a document

spell check - a function that reviews a document for spelling errors

font - a file's type

compatibility - the ability of one program or file to work with a different program

16. The three main components of the Digital economy are:

1. wholesale
2. e-business
3. e-business infrastructure
4. e-commerce

Раздел 4. Промежуточная аттестация

Форма контроля/оценочное средство:

Раздел 5. Виды и свойства компьютеров

Форма контроля/оценочное средство: Задача

Вопросы/Задания:

1. Our website needs to ... a friendly and efficient service.
 1. promote
 2. do
 3. share
 4. make
2. How much time should you spend on each slide?
 1. Any length of time
 2. 30 seconds
 3. 2-3 minutes
 4. 5 minutes
3. When your computer is not connected to the internet, it is
When your computer is not connected to the internet, it is
4. When you make graph and Picture in document, then your computer holds the data in
 - A. Memory
 - B. Clipboard
 - C. Backup drive
 - D. Restore file
5. Networking is a connection of two or more
 - A. Business
 - B. Place
 - C. Computer System
 - D. None
6. Put the words in the right order:
Security - 1
when - 2
send - 3
is - 4
online - 5
you - 6
information - 7
confidential - 8
crucial - 9
7. What do the letters ISP stand for?
What do the letters ISP stand for?
8. Tom notices that when he runs several programs simultaneously on his computer, the performance of the programs slows down considerably. What is the reason for this?
 - A. Nonfunctional keyboard
 - B. Nonfunctional mouse
 - C. Insufficient random access memory (RAM)
 - D. Low monitor speed
9. It is generally NOT a good practice to deliver a presentation by:
 1. Reading the entire presentation line by line
 2. Elaborating each bullet point on the presentation materials
 3. Paraphrasing what is on the presentation materials
 4. Mentioning the highlights of what is on the screen
10. Match the words with the definitions:

Query - a single page of a spreadsheet

database - a large group of data organized in a computer system

worksheet - a search that locates all information of a specific type

table - a mathematical instruction that performs a specific calculation in a spreadsheet

function - a grid that organizes data into columns and rows

11. What does "www" stand for?

1. Wicked Wizard Web
2. Wiked Will West
3. Were World Was
4. World Wide Web

12. Match the words with their definitions:

Keyboard - a set of buttons that is used to enter information into a computer

Mouse - a device that is used to transfer printed documents and pictures into a computer system

Scanner - a small device that is used to move the cursor and select items on a computer

Microphone - a screen that displays text, video, or images

Monitor - a device that is used to record sound

Peripheral - a device that broadcasts sound and video on the Net

Webcam - a device that can be connected to a computer

13. What should a strong password contain?

1. Capital Letters and Numbers
2. Lowercase Letters and Number
3. Capital Letters and Lowercase Letters
4. Punctuation, Capital Letters, Lowercase Letters and Spaces

14. What does internet security do to help your computer?

1. It clears all the viruses and trojans from your system.
2. it keeps you from downloading internet files.
3. It stops you from accessing the internet.
4. It messes with your computers operating system.

15. Match the words with the definitions:

Operator - a category in a database that holds a particular type of information

spreadsheet - a computer program that organizes information and performs calculations

field - a symbol in a formula that performs a specific calculation

formula - ne unit of a spreadsheet that holds a piece of information

cell - o any mathematical calculation that you perform in a spreadsheet

Раздел 6. Промежуточная аттестация

Форма контроля/оценочное средство:

Вопросы/Задания:

.

Раздел 7. Программное обеспечение ПК

Форма контроля/оценочное средство: Задача

Вопросы/Задания:

1. When you're connected to the Internet, you are
When you're connected to the Internet, you are
2. That was ... question in the exam.
 1. the least
 2. the less
 3. little difficult
 4. the least difficult
3. New technologies make global ... easier.
 1. communication
 2. travelling

3. lack
4. resistance

4. I haven't got a dictionary. Can you give me ...?

1. us
2. yours
3. their
4. her

5. Match the English word with its Russian equivalent:

Cheat - помнить

remember - обманывать

increase - увеличивать

express - беспокоить

disturb - выражать

6. What does the communication process not require?

1. encoding
2. recruiting
3. a channel
4. decoding

7. This time last year she ... for her FCE exam.

1. prepared
2. was preparing
3. has prepared
4. is preparing

8. Укажите правильный перевод Send e-mails:

1. получать сообщения
2. получать письмо
3. передавать сообщения
4. отправлять электронную почту
5. получать электронную почту
6. отправлять письмо

9. How can paperless office affect the environment?

1. Paperless office will lead to litter reduction
2. Paperless office will reduce deforestation
3. Paperless office will increase the ink supply speed
4. Paperless office will reduce car pollution

10. Why do analysts believe virtualisation will win out?

1. Virtualisation will cost cheaper than electricity.
2. Virtualisation will bring firms more money.
3. Virtualisation will allow firms to switch vendors more easily.
4. Virtualisation create demand on smartphones.

11. In what way does virtualisation lower maintenance costs for firms?

1. It is possible not to maintain PC's at all.
2. Maintaining PC's now costs lower than electricity.
3. It is possible to maintain PC's remotely, which is much cheaper.
4. Employees are able to maintain PC's themselves

12. Укажите правильный перевод touch screen :

1. сенсорная панель
2. сенсорный планшет
3. сенсорный экран
4. сенсорный смартфон

13. In a cloud computing system, what handles heavy applications instead of local computers?

1. Heavy applications are handled by the network of computers that make up the cloud.
2. Heavy applications are handled by system administrators.
3. Heavy applications are handled by netbooks.
4. Heavy applications are handled by Web-services.

14. What is the first step in all 3-D printing processes?

1. The software calculates how many details need to be constructed
2. The software takes one hour to prepare the parts of the object
3. The software calculates the size of the printer
4. The software takes cross-sections through the part to be created and calculates how each layer needs to be constructed

15. What will the most elaborate 3-D printers be capable of?

1. They will provide a cost-effective way to manufacture thousands of components in one day
2. They will provide a cost-effective way to manufacture thousands of components
3. They will provide a cost-effective way to manufacture metal components
4. They will provide a way to manufacture wood and plastic components

16. What are the results of the storage device virtualisation?

1. Software can allocate «virtual disks» as needed.
2. Storage devices are now allowed for rent.
3. Storage devices became cheaper.
4. Storage devices aren't needed any more.

Раздел 8. Промежуточная аттестация

Форма контроля/оценочное средство:

Вопросы/Задания:

.

7. Оценочные материалы промежуточной аттестации

Очная форма обучения, Первый семестр, Зачет

Контролируемые ИДК: УК-4.1 УК-4.3 УК-4.4 УК-4.5

Вопросы/Задания:

1. What is information technology?
2. What does “computer literacy” mean?
3. How can you describe Information Age?
4. What does make payment system more secure?
5. What is a computer?
6. What is hardware?
7. Give the definition of software.
8. What is a program?
9. Describe a CPU.

10. What is main memory? What sections does it have?
11. Give the definition of peripherals.
12. What is input device? What input devices do you know?
13. What is output device?
14. What is a core function of a computer?
15. What are the ways of information output?
16. What is the difference between supercomputer and mainframe?
17. What is a laptop? What benefits of a laptop do you know?
18. What is a tablet PC? What functions of it do you know?
19. What is a PDA? What for can we use it?
20. What is a UPS?
21. What are the main parts of the CPU?
22. What does ALU stand for? What does it do?
23. What is the function of the system clock?
24. What is a bus, backside bus, front-side bus?
25. What are three main memory circuit boards types? Which type is used more than others?
26. What type of memory is permanent and includes instructions needed by the CPU?
27. What is the difference between two main types of RAM?
28. How can RAM be increased?
29. What do you know about the BIOS?
30. What is a firmware?
31. What is a MaskROM?
32. What groups of keys does a standard PC keyboard have?
33. What is a barcode reader?
34. What are the functions of dedicated keys?

35. What is the difference in the usage of flatbed and handheld scanners?
36. What is Optical Character Recognition?
37. What do CRT and LCD stand for?
38. What technology is used by active-matrix LCDs?
39. What are the three advantages of OLED displays?
40. What are dot-matrix printers and its main disadvantages?
41. Describe impact printing technology
42. What are the advantages / disadvantages of inkjet printers?
43. What is an imagesetter?
44. What technology is called computer to plate and why?
45. Where are used plotters and why?
46. Артикли в английском языке (Articles)
47. Времена английского языка (Simple, Continuous, Perfect, Perfect Continuous)
48. Глаголы to be, to do, to have
49. Причастия в английском языке (Participle I, II)
50. How can we use storage devices?

Очная форма обучения, Второй семестр, Зачет
Контролируемые ИДК: УК-4.1 УК-4.3 УК-4.4 УК-4.5

Вопросы/Задания:

1. Give a definition of the Internet.
2. What is the difference between the Internet and the World Wide Web?
3. Tell about the most important stages in the history of the Internet
4. How old is the Internet (the Net)? When was it created?
5. Who created the Internet?
6. What does TCP/IP mean?

7. What are the functions of email?
8. What do you know about the Web ? What does the Web consist of?
9. What do you know about FTP?
10. What is a modem?
11. What does Internet Privacy mean?
12. What Internet scandals do you know? How did they affect people's lives? What is your opinion to this problem?
13. Describe website privacy policy.
14. Give a definition of "magic cookies".
15. What is a cookie What types of cookies do you know? What are their main features?
16. What are the levels of the Internet?
17. What are main differences between circuit-switching and packet-switching technologies?
18. What type of switching technology should be used for nuclear power station control? Why?
19. What primary differences you notice between the blog sites and the nonblog sites? Give a definition of a blog.
20. What are the key characteristics of a blog?
21. What makes a blog a blog?
22. What is Electronic Commerce (E-Commerce)? What are the methods of electronic commerce?
23. What do E-commerce tools include?
24. What does the Concept of e-commerce relate to?
25. What does the cryptographic mechanisms include? Describe public key cryptography.
26. What is SMTP? . Explain what is an SMTP used for?
27. Describe POP – Post Office Protocol
28. How does sending & receiving e-mail work?
29. What are the functions of the POP? How can you describe POP3?

30. Describe IMAP.
31. What components does the email system consist of?
32. What is Mailboxes?
33. What is Mail Server?
34. What are email protocols?
35. Adjectives and adverbs
36. Passive voice
37. Gerund- Герундий в английском языке
38. Modal verbs
39. Question Forms
40. Indirect Speech
41. Zero Conditional and First Conditional
42. What is Telnet?
43. What are Newsgroups
44. What are the advantages of E-commerce to organization consumers and society?
45. What functions does the Internet service perform?
46. Tell about the website's Privacy Policy and cookies
47. What are the ways to access the Internet?
48. What is the Internet?
49. What do you know about online fraud?
50. What are the ways to make sure your online credit card transaction is safe?

Очная форма обучения, Третий семестр, Зачет
Контролируемые ИДК: УК-4.1 УК-4.3 УК-4.4 УК-4.5

Вопросы/Задания:

1. What does the term PC typically refer to? What does the term Mac typically refer to?
2. How are a Mac and a Windows-Based PC similar?

3. What are the differences between a Mac and a Windows-Based PC?
4. What does the term Hackintosh typically refer to?
5. What is Linux?
6. What does the Linux operating system comprise?
7. What is Bootloader?
8. What is the Kernel?
9. What does the Init system manage?
10. What does each desktop environment include?
11. What are the types of desktop environments?
12. What are the advantages and disadvantages of Linux and Windows?
13. How is Linux different from Windows?
14. What makes a good website? What principles lie at the heart of good website design?
15. What purpose did Snapchat have? What for was it designed?
16. What was Snapchat's biggest mistake? What did it lead to?
17. Why is identifying your audience crucial to building a good website?
18. What is the best way to find out your target users?
19. What are the advantages of Virgin Atlantic website?
20. Name the steps in the website development.
21. What are the most affordable and popular platforms to create a website?
22. What are the benefits of the Wix platform?
23. What are some of the advantages of Internet Advertising?
24. What are the disadvantages of Internet Advertising?
25. What is marketing?
26. What is advertising?
27. What are the most influential types of Internet Advertising?

28. What is native advertising?
29. What is Web Push technology?
30. What is mobile advertising?
31. How are automation systems categorized?
32. What is fixed automation?
33. What is programmable automation?
34. What is flexible automation?
35. What is integrated automation?
36. What is CAM?
37. How does CAM work?
38. What is the difference between CAM and CAD?
39. What is CAM used for?
40. What is CAM used for in chemical and OTC pharmaceutical manufacturing companies?
41. How is CAM used in the construction industry?
42. Give the example of modular building.
43. What are the benefits of CAM?
44. What are the drawbacks of CAM?
45. Give a short history of telecommuting.
46. What are the criteria to choose video-conferencing services?
47. What are the types of hacking activity?
48. What are the most popular forms of network hacking?
49. How are modern computer hackers usually defined?
50. What is Cyber Security Specialist responsible for?

*Очная форма обучения, Четвертый семестр, Экзамен
Контролируемые ИДК: УК-4.1 УК-4.3 УК-4.4 УК-4.5*

Вопросы/Задания:

1. What is information technology?
2. What does “computer literacy” mean?
3. How can you describe Information Age?
4. What is hardware?
5. Give the definition of software.
6. What is input device? What input devices do you know?
7. What is a laptop? What benefits of a laptop do you know?
8. What does ALU stand for? What does it do?
9. What is the difference between two main types of RAM?
10. What do you know about the BIOS?
11. What are the functions of dedicated keys?
12. What is Optical Character Recognition?
13. What is the difference between the Internet and the World Wide Web?
14. What does TCP/IP mean?
15. What do you know about the Web ? What does the Web consist of?
16. What does Internet Privacy mean?
17. What is a cookie What types of cookies do you know? What are their main features?
18. What are main differences between circuit-switching and packet-switching technologies
19. What primary differences you notice between the blog sites and the nonblog sites? Give a definition of a blog.
20. What is Electronic Commerce (E-Commerce)? What are the methods of electronic commerce?
21. What does the cryptographic mechanisms include? Describe public key cryptography.
22. What are the functions of the POP? How can you describe POP3?
23. What are the advantages of E-commerce to organization consumers and society?

24. Tell about the website's Privacy Policy and cookies
25. What does the term PC typically refer to? What does the term Mac typically refer to?
26. What is Linux? What does the Linux operating system comprise?
27. What does each desktop environment include?
28. What are some of the advantages and disadvantages of Internet Advertising?
29. What is marketing?
30. What is advertising? What are the most influential types of Internet Advertising?
31. What is Web Push technology?
32. What are the criteria to choose video-conferencing services?
33. What is the difference between CAM and CAD?
34. When does identity theft occur?
35. What are the most common forms of identity theft?
36. When do victims usually discover new accounts?
37. What is Income tax identity theft?
38. What is the difference between phishing and pretexting?
39. What is pharming? How Does Pharming Work?
40. What is meant by malware? What are the types of malware?
41. What is a virus?
42. What is keystroke logging?
43. What is Antivirus? What is an antivirus program?
44. What is sandbox detection?
45. How do cloud applications differ from other applications?
46. What is a system administrator? What are the functions of a system administrator?
47. What do SRE Site Reliability Engineers do?
48. What is a security administrator?

49. What is a database administrator responsible for?
50. What is Iaas? What are the advantages of SaaS?
51. What are legal and illegal usages of keylogging?
52. How does antivirus software detect and remove viruses and malware?
53. When does cloud computing rely on? What is Cloud computing?
54. What do machine learning technologies do?
55. What are the duties of a web administrator?
56. Which type of fraud can be hard to spot, but easy to prevent?
57. When does phishing occur?
58. What are the responsibilities of a computer operator?
59. What is the best way to avoid identity thefts?
60. What is card scamming?

61. Text 1

Google expects a high price for its share

It's the world's most popular search engine. It also happens to be the first company confident enough, or silly enough, to promise in the paperwork for an initial public offering (IPO) of its shares "not to be evil". Clearly, Google is not accustomed to embarrassment or criticism. So it must have felt rather uncomfortable that many users of its site on July 26th - the very day that Google announced the expected price range for its IPO - got an error message. Google, it turned out, had been overloaded by the My Doom internet virus.

Google has been promising to democratize the IPO process. By this it means denying investment banks' most-valued customers the windfall they normally get from the deliberate underpricing of shares allocated to them in an IPO, so that the price jumps on the first day of trading. Instead, Google will let investors, including small ones, participate in an online Dutch auction. Google will then determine the IPO price to match supply and demand. Oddly, however, its egalitarian instincts are not preventing Google's management from going on a traditional road show for the next two weeks to schmooze big institutional investors.

Google expects a price between \$108 and \$135 a share, it said this week. That struck many as a bit rich, literally. A price per share as high as that seems odd for a company that claims to like small investors. And it implies that Google is worth some \$36 billion, just shy of the value of Yahoo!

62. Text 2

Regardless of the state-of-art components and applications, computers are just not convenient enough. We need to understand too much of the tools and logic, instead of simply seeing the wanted outcome. Yet computers are appearing everywhere. Digitalization of audio, video and images allows computers to act as stereos. TVs, photo albums and communication appliances. Sensors and tags are

emerging in everyday objects, making smart goods a part of the IT world as well. "The issue is that these new embedded features do not deliver the level of convenience, functionality or interfaces required by average users", said Dr. Joseph Reger, Chief Technology Officer of Fujitsu Siemens Computers.

Affordable computing and Internet access can be added into entertainment consoles, TVs, messaging phones etc. Companies are reaching for market share from other segments as soon as their product offers the slightest functionality. "In times when everyone is desperately seeking growth areas, the art of design, ease-of-use, simplicity, reliability, appropriate behaviour and classical usage practices are ignored", he said. "Embedding computing and Internet into anything will ignite a shift in the design of clients, servers, network and storage. Embedded services become a key element in the creation of networked and ubiquitous environments for the new devices", Reger said.

"It is our responsibility to hide the many networked devices around us. No one will regret if the big hardware boxes one day vanish into thin air", Reger said.

63. Text 3

"Products need to mimic the user's behaviour", said Dr. Joseph Reger, Chief Technology Officer of Fujitsu Siemens Computers. "A single device cannot serve all purposes. Dedicated invisible devices can be pre-configured to be 'maintenance-free', which fits the real need of certain services", he added.

"We need to move towards an invisible embedded service concept. A sensor in a car needs to book maintenance from a service station and appoint time from my calendar", he said. Devices rely on each other to provide the services and activities they are designed for - to overcome specialization in their own function. Reger said "Devices have to discover their environment and be interoperable. Value is based on how well they are able to exploit and exchange information with other devices.

"Think about place-mats with electronic paper displays in a fast-foot restaurant loaded with news and advertisements for local stores. Buy "today's special meal" and get the sport news thrown in!" Attractiveness of such services will not only make the digital devices look different, but will also become important in winning customers through meeting their needs better", he said.

Reger commented that Fujitsu Siemens Computers has set its strategic focus on next-generation Mobility and Business Critical Computing products, services and solutions to meet the evolving needs of our information society.

64. Text 4

Backend servers are becoming virtualized, remotely and dynamically allocated, all integrated with the needs of business processes. Dr. Reger, Chief Technology Officer of Fujitsu Siemens Computers, added that there is still work to do before the level of reliability, interoperability, flexibility and cost transparency required is available.

"Beyond showing information, most of computings in the background", he said. 'Invisible' data centres are already being built, driven by virtualization, automation and integration. Effective business process integration requires dynamic operation and efficient resource utilization. Invisible devices and embedded services require an infrastructure that seamlessly integrates databases, transactions, etc. "E-commerce needs to appear in an understandable form and deliver services that people identify with", Reger said.

New data centre designs are just the beginning. "We anticipate that the largest networked centres will be consolidated in a small number of places in the world, exploiting low-cost-off-shore locations." They will perform as interconnected centres, providing services to anyone, anywhere. "Reliability and robustness requirements for business critical needs are unconditional and uncompromising", said Reger.

Client devices and server infrastructures will both become more important in our lives, but also more invisible - and no-one will mind that one bit.

65. Text 5

"As the I LOVE YOU virus infected millions of systems around the globe, I became curious about how and why the virus spread so quickly", said Dr. Bruce V. Hartley, Technical Editor of the "Internet Security Advisor" magazine. "So I obtained a copy of the source code and began to go through it. Wow! What a nasty little program. As I walked through the code, it was clear this is more than just a worm. The program is malicious in that it searches for numerous file types, such as .jpeg, .vbs, and .mp3, and overwrites them with itself. Therefore, at a minimum, it destroys files on local machines and alters contents.

The I LOVE YOU virus does other things as well, but clearly its goal is to replicate and spread as far as it can. In addition, to achieve this goal, it creates a framework for re-infection after it is identified. In fact, in one portion of the code, it even includes a text message warning a user who might be trying to disinfect a machine not to delete the script file or it will corrupt Windows, causing it to run incorrectly. I was also surprised by how easily the software products and tools we use and rely on to conduct business everyday can be exploited. The virus launches an application, is able to access files used by that application, and causes it to perform specific actions, all from a script file. Think about it. The software you use every day and rely on for serious business use can be easily manipulated. Worse, your hardware, in this case your hard drive, can be accessed and files can be overwritten without your knowledge or consent."

66. Text 6

Why did the I LOVE YOU virus spread so fast? One reason is the way the virus executes, and how it appears to come from a known and probably trusted source. The real question why did everyone open an unsolicited and unexpected executable attachment? Didn't they know about the potential risks associated with executable files? Probably not. Obviously, we need to be more careful about opening executable attachments and to make sure we get this word out loud and clear. Perhaps now is a good time to re-evaluate your e-mail security policy as well as consider increasing, or possibly starting a security awareness program. In fact, you could walk your staff through the I LOVE YOU source as a case study on the risks associated with executable mail attachments!

A good security awareness program should provide users with an understanding of the security requirements, the rationale for the requirements, and the mechanisms used to provide the desired level of protection. Be honest and address what's at stake. Most people won't support a policy or set of requirements they don't understand or believe in. This is where it's critical to not just say we have to protect our confidential information, but to discuss why it's so important and the potential consequences or effects if security is breached. Security breaches usually cost time, money, and in some rare cases, jobs or entire companies. The stakes are big, and everyone must understand the potential risks.

67. Text 7

The rapid spread of the I LOVE YOU virus also highlights the need for a more formal incident response capability. If I get infected with a virus, what do I do? Who do I contact? These procedures should be well-defined and understood to help limit the spread of such programs. What else can you do? Well, you can consider keeping virus protection software up-to-date and ensure that it's being used.

If you don't have a virus protection or malicious logic policy, now is a good time to develop one. Identifying and standardizing on a single virus protection software package is also a good idea. Also, consider running a complete, routine virus scan against all files, which can significantly reduce the risks associated with viruses and malicious logic. But virus protection is often a cure for yesterday's problem, not necessity for tomorrow's new risk.

Another common approach to protecting corporate assets, is to create a policy that only lets specific applications software be installed on company systems. A formal software policy can help keep your company legal with regard to software licenses and reduce other problems associated with unsupported applications, including malicious logic or viruses. A policy can keep most folks honest, but to be sure, an auditing mechanism or process is required.

68. Text 8

Computers come in a variety of sizes and shapes and with a variety of processing capabilities. The earliest computers were quite large because of the crude technologies used; as technological improvements were made in computer components, the overall size of computers began to shrink. Today, the complete CPU (central processing unit) of a computer can be smaller than a postage stamp.

To provide a basis for comparing their capabilities, computers are generally grouped into four basic categories: supercomputers, which are the powerful giants of the computer world; mainframe computers, which are large, extremely powerful computers used by many large companies; minicomputers, which are the next most powerful; and microcomputers, which are the least powerful - but which you most likely will be required to use in business. It's hard to assign a worthwhile definition to each type of computer because definitions can get bogged down in potentially confusing technical jargon.

In general, a computer's type is determined by the following seven factors:

- the type of CPU;
- the amount of main memory the CPU can use;
- the capacity of the storage devices;
- the speed of the output devices;
- the processing speed in millions of instructions per second (mips);
- the number of users that can access the computer at one time;
- the cost of the computer system.

It's difficult to say exactly what kind of computer you will be using in the business environment.

69. Text 9

Chances are that when you enter the business environment you will be required to know how to use a microcomputer to perform many of your job-related functions. It is therefore critical that you understand the typical components of a microcomputer system in order to use it effectively and talk

about it intelligently. The more you know about it, the more valuable you will be to a current or potential employer. To understand the tremendous role microcomputers now play in business, it's helpful to look at how that role has developed. With the introduction of the Apple II and the Radio Shack Model I and II systems in the late 1970s, the business community began to adopt microcomputers. Then a number of additional vendors, including Atari, Commodore, Osborne and Kaypro, entered the marketplace with computers designed to be used in the office or in the office or in the home. The interest in microcomputers grew rather slowly at first for several reasons:

1. The initial cost for some microcomputer systems was quite high, ranging up to \$6,000.
2. The average person did not have sufficient background in computer-related subjects to use the computer without difficulty.
3. There were no industry wide standards to ensure the compatibility - that is, the usability - of data and software on different types of microcomputer systems.

However, when IBM introduced the IBM PC, so many businesses adopted the product that an industry standard was set. Most vendors now design their products to be compatible with this standard.

70. Text 10

The first large-scale electronic computer, the Electronic Numerical Integrator and Computer (ENIAC) became operational in 1946. It contained approximately 18,000 electronic vacuum tubes - tubes the size of light bulbs that controlled the flow of electric current. The ENIAC, which weighed 30 tons and occupied about 1,500 square feet of floor space - huge machine compared to today's standards - was able to perform a scientific calculation involving the multiplication of four numbers in approximately 9 milliseconds (9/1,000ths of a second). Since that time, the technology used in the design and production of computers has accelerated at a remarkable pace.

The term "generation" was applied to different types of computers to help delineate the major technological developments in hardware and software. To date, computer technology has evolved through four distinct generations and is currently developing into a fifth generation. As you read about each generation, you should be thinking about how each has affected data processing, because each development has had (and in the case of the later generations, will continue to have) an effect on you - on the job and in society in general.

71. Text 11

Computers

First generation (1944-1958) - Most input and output media were punched cards and magnetic tape, and main memory was almost exclusively made up of hundreds of vacuum tubes - although one computer used a magnetic drum for main memory. These computers were slow and large and produced a tremendous amount of heat. they could run only one program at a time.

Second generation (1959-19630) - By the early 1960s, transistors and some other solid-state devices that were much smaller than vacuum tubes were being used for much of the computer circuitry. Magnetic cores, which looked like very small metal washers strung together by wires that carried electricity, became the most widely used type of main memory. Removable magnetic disk packs, stacks of of disks connected by a common spindle (like a stack of records), were introduced as storage devices. Second-generation machines tended to be smaller, more reliable, and significantly faster than first-generation computers.

Third generation (1964-1970) - The integrated circuit - a complete electronic circuit on a silicon chip - replaced transistorized circuitry. The use of magnetic disks became widespread, and computers began to support such capabilities as multiprogramming and timesharing (people using the same computer simultaneously). Minicomputers were being widely used by the early 1970s. The production of operating systems - a type of systems software - and applications software packages

increased rapidly. The size of computers continued to decrease.

72. Text 12

Fourth generation (1970-Now) - in 1971, the first electronic computers were introduced that used Large-Scale Integration (LSI) circuits - thousands of integrated circuits on a chip - for main memory and logic circuitry (the circuitry that performs the logical operations of the CPU; different types of chips had different functions). These computers had a much larger capacity to support main memory. this period has also seen increased use of input and output devices that allowed data and instructions to be entered directly through the keyboard. The microprocessor, introduced in 1971, combined all of the circuitry for the central processing unit on a single chip. LSI and the microprocessor enabled the development of the supercomputer.

Fifth generation (now and in the Future) Definitions of what constitutes fifth-generation computers do not always agree. Some people think that the new microcomputers with faster operating speeds, greater processing capacity, and virtually unlimited memory should be included. Other people believe that fifth-generation computers will have circuitry based on gallium arsenide. Gallium arsenide offers a fivefold speed increase and uses only one tenth of the power that silicon uses. Scientists have also tried to develop new superconductors that can conduct electricity with no resistance, thus generating no heat but great speed.

73. Text 13

A computer is an electronic device that store, retrieve and process data, perform calculation and present results based on a program given to it by a programmer.

New generations of computer technology will continue to affect the processing of data and information. Data collection continues to become easier and easier, data processing is getting faster and faster, mathematical calculations continue to be performed with increased precision, and information is being provided to users in generally more useful forms. And one of the best improvements that new technology brings us is that computers continue to become easier to use.

Before computers were invented, data was collected and processed by hand in a variety of tedious ways. And the data often had to be recopied more than once before it could be processed into information. Data collection for early computers was often done by transcribing hardcopy data into computer-usable forms such as punched cards or paper tape. The data was recorded by punching a series of holes according to a standardized coding scheme. Technological advancements in data collection have made this cumbersome collection method almost obsolete. Fortunately, the technology for data collection has advanced to the point where such methods have become extremely rare.

No wonder that so many businesses have adopted computers so readily. Quick and easy production of accurate information has become a reality to businesspeople.

74. Text 14

In 1890, the U.S.Congress authorized the Census Office to hold a competition to select the most efficient new method for recording and tabulating the census. Herman Hollerith won the contest with the system for electric tabulating using data input on punched cards. Although at the time the speed of the data processing method was a major breakthrough - it took Hollerith six weeks to compute an unofficial census - a modern personal computer can process the same amount of data in about half the time, after capturing it in a computer-usable form.

Thanks to the science of ergonomics (also called human engineering), which designs things to be easily used by people, the convenience of computer use has also improved over the years. Many people have been afraid of computers, but great strides have been made in transforming the computer into a friendlier, less mysterious tool. Input devices have become easier to use, and software is easier to understand than ever before.

In addition to being fast and easy to use, the computer also brings us a math facility that many of us thought was eternally beyond our reach. Have you ever had difficulty balancing your checkbook or

creating a budget? Or is your life overshadowed by math anxiety? Many of us find it difficult to consistently perform mathematical calculations accurately by hand. Sooner or later we make a mistake. One of the major advantages of a computer is that, with the proper software, it will perform calculations quickly and accurately, with much greater precision and speed than would be possible manually.

75. Text 15

Everything is connected to everything else. A change in one area will cause changes in other areas, even if they aren't readily apparent to us. This means that with opportunities also come problems. We are learning this lesson, for example, in the area of ecology. Are we also learning it in relation to the computer's growing role in business and society?

This question is becoming more important as information technology replaces energy as society's main resource. Many people are concerned that too much emphasis has been put on what the computer can do to streamline business and too little on how it may be affecting the quality of our lives. For example, is it distorting the meaning of thought? That is, is it absurd and dangerous to attribute the capabilities of thinking and creativity to a computer? People have experience, convictions, and cultural traditions. Are these qualities being devalued? If so, perhaps we are heading into an era in which machinelike qualities of speed and problem solving will be valued more highly than what used to be called humane qualities.

Many people believe that the computer's level of 'thinking' can be compared simply to a muscle spasm and that too many computer enthusiasts are confusing data with ideas. After all, nothing is information until a person interprets it. And information is not the same as knowledge, which is gained by thinking. Further, knowledge can be gained without new information being received by the thinker.

76. Text 1

The Information Age began from the first communication between humans in face-to-face interaction. Very soon humans created ways of sending messages and recording information for use over time by others. A lot of methods were not very convenient, but man's creative spirit kept on creating. Nowadays the technology for communicating face-to-face over long distances and for storing and transmitting massive amounts of information through the use of electricity and light waves was invented.

First electric pulses were sent over wire in 1729. Then, in 1831 the telegraph was invented, allowing information to be transmitted by code of long and short electrical signals. In 1866 these signals were first carried by cables under the Atlantic Ocean. Bell's invention of the telephone led to the development of a system that enabled people to have instantaneous voice communication with each other. It was in 1892.

The invention of television in the 1920s made it possible for people to see what is happening around the world. Normally, what we see is selected and edited first; but, more recently, and more frequently, there is direct, live broadcasting of actual events. So we have been able to watch important ceremonies, military operations, and other historical events as they occur.

77. Text 2

Miniaturization of electronic equipment has led to high-speed computers with very large memories as well as pocket-size computers. In some countries affordable prices have also led to widespread use of computers even outside of businesses.

An international electronic communications network of thousands of networks linking computers, began with one network, ARPANET, a U.S. government experiment in 1969. Now Internet is only one of many systems. The first inter-city fiber-optic phone system was installed, adding to the capacity of networks, in 1983. The networks become so complex that users need electronic tools to search the services and databases.

Other network systems and Internet allow "people in geographically distant lands to communicate across time zones without seeing each other ... information is available 24 hours a day from thousands of places". There is no "middleman". It can be real -time or delayed-time interaction. People are not restricted to direct communication with just a few people at a time. Electronic communication is a mixture of oral and written communication.

78. Text 3

The electronic networks have become the key international infrastructure of the 21st Century. But what do we know about such an important thing in computer technology like numerals?

Signs or symbols for graphic representation of numbers are numerals. The earliest forms of numerical notation were simply groups of straight lines, either vertical or horizontal, each line corresponding to the number 1. Such a system was inconvenient when dealing with large numbers. The Romans created the system of number symbols which expresses all numbers from 1 to 1,000,000 with the help of seven symbols. Roman numerals are read from left to right and are still used today. It is not suitable for rapid written calculations.

In most parts of the world the Arabic system of numerical notation is used. It was first developed in India in the 3rd century BC. At that time the numerals 1, 4 and 6 were written in the same form as today. The Arabic system uses a positional notation, in which individual number symbols assume different values according to their position in the written numeral.

79. Text 4

A computer is a device made up of a combination of electronic and electromechanical components. By itself, a computer has no intelligence and is referred to as hardware. A computer system, doesn't come to life until it is connected to other parts of a system. A computer system is a combination of five elements:

Software.

People.

Hardware.

Procedures.

Data/information.

When one computer system is set up to communicate with another computer system, connectivity becomes the sixth system element. In other words, the manner in which the various individual systems are connected – for example, by phone lines, microwave transmission, or satellite - is an element of the total computer system.

Software is the term used to describe the instructions that tell the hardware how to perform a task; without software instructions, the hardware doesn't know what to do.

People, however, constitute the most important component of the computer system. People operate the computer hardware; they create the computer software instructions and respond to the procedures that those instructions present.

80. Text 5

Processing information is the basic job of computer. Computers accept information in the form of instruction called a programme and characters called data to perform mathematical and logical operations, and then give the results. Information is organized, processed, refined and useful for decision making while the data is raw material. And computer is used to convert data into information.

What is hardware?

The hardware is the mechanical, magnetic, electronic and electrical devices composing a computer system. There are four categories for a computer hardware: input hardware, processing hardware, storage hardware, output hardware.

Input hardware is used to collect data and convert it into a form suitable for computer processing. A keyboard is the most common input device. The mouse is a hand held device connected to the computer by small cable. The cursor moves across the screen when the mouse is rolled across the mouse pad. The cursor reaches the desired location and the user pushes a button on the mouse once or twice to signal a menu selection or a command to the computer.

81. Text 6

Retrieve, interpret and direct the execution of software instructions provided to the computer is the purpose of processing hardware. The most common components of processing hardware are the Central Processing Unit (CPU) and main memory.

The CPU is the brain of the computer. It reads and interprets software instructions and coordinates the processing activities that must take place. The design of the CPU affects the processing power and the speed of the computer, as well as the amount of main memory it can use effectively. If you have a well-designed CPU in your computer you can perform highly sophisticated tasks in a very short time.

Information is stored in the system of component of the computer which is called memory. Memory has two types:

- 1) RAM (random access memory) is the volatile computer memory. It is used for creating loading, and running programs and for manipulating and temporarily storing data;
- 2) ROM (read only memory) is nonvolatile, nonmodifiable computer memory. It is used to hold programmed instructions to the system.

The more memory you have in your computer, the more operations you can perform.

82. Text 7

Storage hardware

Its purpose is to store computer instructions and data in a form that is relatively permanent. Storage hardware serves the same basic functions as do office filing systems except that it stores data as electromagnetic signals. The most common ways of storing data are Hard disk (HDD), floppy disk and CD-ROM.

A hard disk is used for storing programs and relatively large amounts of data.

Diskette or floppy disk is thin, usually flexible plastic disk coated with magnetic material, for storing computer data and programs. One format for floppy disks: 5,25" is not used in modern computer systems because of it relatively large size, small capacity and flexibility. Another one :3,5" disks are formatted 1,44 megabytes and are widely used.

CD-ROM is a compact disc on which a large amount of digitized read-only data can be stored. The growing speed which CD-ROM drives can provide have led to a popularity of CD-ROMs.

The purpose of output hardware is to provide the user with the means to view information produced by the computer system. Information is output in either hardcopy or softcopy form.

83. Text 8

Programs for directing the operation of a computer or electronic data the computer requires are called Software. It is the final computer system component. These computer programs instruct the hardware how to conduct processing. The computer is merely a general-purpose machine which requires specific software to perform a given task. Computers can input, calculate, compare, and output data as information. Software determines the order in which these operations are performed.

Programs usually fall in one of two categories^ system software and applications software. System software controls standard internal computer activities. An operating system, for example, is a collection of system programs that aid in the operation of a computer regardless of the application software being used. When a computer is first turned on, one of the system programmes is booted or loaded into the computers memory. This software contains information about memory capacity, the model of the processor, the disk drives to be used, and more. The applications software can be brought in when the system software is loaded.

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The next step is accessing the Internet via mobile devices such as mobile phones and PDAs (personal digital assistants, also referred to as handhelds). High-speed access is already available on wireless LAN (local area network) system, also known as wi-fi. To access the Internet in this way, you have to be a particular hotspot^ a place such as a cafe or airport terminal, which is equipped with the network.

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Some companies try to prevent hackers from coming into their computer systems in order to steal or destroy the information on them.

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Windows 10 introduces what Microsoft described as a universal application architecture; expanding on Metro-style apps, these apps can be designed to run across multiple Microsoft product families with nearly identical code – including PCs, tablets, smartphones, embedded systems, Xbox One, Surface hub and HoloLens.

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89. Text 14

The Internet is used to search for and retrieve information on all sorts of topics in a wide variety of areas including the arts, business, government, humanities, news, politics and recreation. People communicate through electronic mail (e-mail), discussion groups, chat channels and other means of informational exchange. They share information and make commercial and business transactions. All this activity is possible because tens of thousands of networks are connected to the Internet and exchange information in the same basic ways.

A part of the Internet is WWW (the World Wide Web). It is information that is connected or linked together like a web. You access this information through one interface or tool called a Web browser. The number of resources and services that are part of the World Wide Web is growing extremely fast. By using a computer terminal (hardware) connected to a network that is a part of the Internet, and by using a program (software) to browse or retrieve information that is a part of the World Wide Web, the people connected to the Internet and World Wide Web through the local providers have

access to a variety of information.

90. Text 15

William Henry Gates was born in Seattle, Washington, in 1955. Bill Gates is among the most famous people of science and engineering because he was the founder of Microsoft in 1975 together with Paul Allen, his partner in computer language development. While attending Harvard in 1975, Gates together with Allen developed a version of the BASIC computer programming language for the first personal computer. In the early 1980s, Gates led Microsoft's evolution from the developer of computer programming languages to a large computer software company. This transition began with the introduction of MS-DOS, the operating system for the new IBM Personal Computer in 1981. Gates also led Microsoft towards the introduction of application software such as the Microsoft Word processor. Much of Gates' success is based on his ability to translate technical visions into market strategy. Although Gates has accumulated great wealth from his holdings of Microsoft stock, he has been known as a tough competitor who seems to value winning in a competitive environment over money.

Заочная форма обучения, Первый семестр, Зачет
Контролируемые ИДК: УК-4.1 УК-4.3 УК-4.4 УК-4.5
Вопросы/Задания:

1. What is information technology?
2. What does “computer literacy” mean?
3. How can you describe Information Age?
4. What does make payment system more secure?
5. What is a computer?
6. What is hardware?
7. Give the definition of software.
8. What is a program?
9. Describe a CPU.
10. What is main memory? What sections does it have?
11. Give the definition of peripherals.
12. What is input device? What input devices do you know?
13. What is output device?
14. What is a core function of a computer?

15. What are the ways of information output?
16. What is the difference between supercomputer and mainframe?
17. What is a laptop? What benefits of a laptop do you know?
18. What is a tablet PC? What functions of it do you know?
19. What is a PDA? What for can we use it?
20. What is a UPS?
21. What are the main parts of the CPU?
22. What does ALU stand for? What does it do?
23. What is the function of the system clock?
24. What is a bus, backside bus, front-side bus?
25. What are three main memory circuit boards types? Which type is used more than others?
26. What type of memory is permanent and includes instructions needed by the CPU?
27. What is the difference between two main types of RAM?
28. How can RAM be increased?
29. What do you know about the BIOS?
30. What is a firmware?
31. What is a MaskROM?
32. What groups of keys does a standard PC keyboard have?
33. What is a barcode reader?
34. What are the functions of dedicated keys?
35. What is the difference in the usage of flatbed and handheld scanners?
36. What is Optical Character Recognition?
37. What do CRT and LCD stand for?
38. What technology is used by active-matrix LCDs?
39. What are the three advantages of OLED displays?

40. What are dot-matrix printers and its main disadvantages?
41. Describe impact printing technology
42. What are the advantages / disadvantages of inkjet printers?
43. What is an imagesetter?
44. What technology is called computer to plate and why?
45. Where are used plotters and why?
46. Артикли в английском языке (Articles)
47. Времена английского языка (Simple, Continuous, Perfect, Perfect Continuous)
48. Глаголы to be, to do, to have
49. Причастия в английском языке (Participle I, II)
50. How can we use storage devices?

Заочная форма обучения, Второй семестр, Зачет
Контролируемые ИДК: УК-4.1 УК-4.3 УК-4.4 УК-4.5
Вопросы/Задания:

1. Give a definition of the Internet.
2. What is the difference between the Internet and the World Wide Web?
3. Tell about the most important stages in the history of the Internet
4. How old is the Internet (the Net)? When was it created?
5. Who created the Internet?
6. What does TCP/IP mean?
7. What are the functions of email?
8. What do you know about the Web ? What does the Web consist of?
9. What do you know about FTP?
10. What is a modem?
11. What does Internet Privacy mean?

12. What Internet scandals do you know? How did they affect people's lives? What is your opinion to this problem?
13. Describe website privacy policy.
14. Give a definition of "magic cookies".
15. What is a cookie What types of cookies do you know? What are their main features?
16. What are the levels of the Internet?
17. What are main differences between circuit-switching and packet-switching technologies
18. What type of switching technology should be used for nuclear power station control? Why?
19. What primary differences you notice between the blog sites and the nonblog sites? Give a definition of a blog.
20. What are the key characteristics of a blog?
21. What makes a blog a blog?
22. What is Electronic Commerce (E-Commerce)? What are the methods of electronic commerce?
23. What do E-commerce tools include?
24. What does the Concept of e-commerce relate to?
25. What does the cryptographic mechanisms include? Describe public key cryptography.
26. What is SMTP? . Explain what is an SMTP used for?
27. Describe POP – Post Office Protocol
28. How does sending & receiving e-mail work?
29. What are the functions of the POP? How can you describe POP3?
30. Describe IMAP.
31. What components does the email system consist of?
32. What is Mailboxes?
33. What is Mail Server?
34. What are email protocols?

35. Adjectives and adverbs
36. Passive voice
37. Gerund- Герундий в английском языке
38. Modal verbs
39. Question Forms
40. Indirect Speech
41. Zero Conditional and First Conditional
42. What is Telnet?
43. What are Newsgroups
44. What are the advantages of E-commerce to organization consumers and society?
45. What functions does the Internet service perform?
46. Tell about the website's Privacy Policy and cookies
47. What are the ways to access the Internet?
48. What is the Internet?
49. What do you know about online fraud?
50. What are the ways to make sure your online credit card transaction is safe?

Заочная форма обучения, Третий семестр, Зачет

Контролируемые ИДК: УК-4.1 УК-4.3 УК-4.4 УК-4.5

Вопросы/Задания:

1. What does the term PC typically refer to? What does the term Mac typically refer to?
2. How are a Mac and a Windows-Based PC similar?
3. What are the differences between a Mac and a Windows-Based PC?
4. What does the term Hackintosh typically refer to?
5. What is Linux?
6. What does the Linux operating system comprise?
7. What is Bootloader?

8. What is the Kernel?
9. What does the Init system manage?
10. What does each desktop environment include?
11. What are the types of desktop environments?
12. What are the advantages and disadvantages of Linux and Windows?
13. How is Linux different from Windows?
14. What makes a good website? What principles lie at the heart of good website design?
15. What purpose did Snapchat have? What for was it designed?
16. What was Snapchat's biggest mistake? What did it lead to?
17. Why is identifying your audience crucial to building a good website?
18. What is the best way to find out your target users?
19. What are the advantages of Virgin Atlantic website?
20. Name the steps in the website development.
21. What are the most affordable and popular platforms to create a website?
22. What are the benefits of the Wix platform?
23. What are some of the advantages of Internet Advertising?
24. What are the disadvantages of Internet Advertising?
25. What is marketing?
26. What is advertising?
27. What are the most influential types of Internet Advertising?
28. What is native advertising?
29. What is Web Push technology?
30. What is mobile advertising?
31. How are automation systems categorized?
32. What is fixed automation?

33. What is programmable automation?
34. What is flexible automation?
35. What is integrated automation?
36. What is CAM?
37. How does CAM work?
38. What is the difference between CAM and CAD?
39. What is CAM used for?
40. What is CAM used for in chemical and OTC pharmaceutical manufacturing companies?
41. How is CAM used in the construction industry?
42. Give the example of modular building.
43. What are the benefits of CAM?
44. What are the drawbacks of CAM?
45. Give a short history of telecommuting.
46. What are the criteria to choose video-conferencing services?
47. What are the types of hacking activity?
48. What are the most popular forms of network hacking?
49. How are modern computer hackers usually defined?
50. What is Cyber Security Specialist responsible for?

*Заочная форма обучения, Четвертый семестр, Экзамен
Контролируемые ИДК: УК-4.1 УК-4.3 УК-4.4 УК-4.5*

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1. What is information technology?
2. What does “computer literacy” mean?
3. How can you describe Information Age?
4. What is hardware?
5. Give the definition of software.

6. What is input device? What input devices do you know?
7. What is a laptop? What benefits of a laptop do you know?
8. What does ALU stand for? What does it do?
9. What is the difference between two main types of RAM?
10. What do you know about the BIOS?
11. What are the functions of dedicated keys?
12. What is Optical Character Recognition?
13. What is the difference between the Internet and the World Wide Web?
14. What does TCP/IP mean?
15. What do you know about the Web? What does the Web consist of?
16. What does Internet Privacy mean?
17. What is a cookie? What types of cookies do you know? What are their main features?
18. What are main differences between circuit-switching and packet-switching technologies?
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21. What do the cryptographic mechanisms include? Describe public key cryptography.
22. What are the functions of the POP? How can you describe POP3?
23. What are the advantages of E-commerce to organization consumers and society?
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27. What does each desktop environment include?
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29. What is marketing?

30. What is advertising? What are the most influential types of Internet Advertising?
31. What is Web Push technology?
32. What are the criteria to choose video-conferencing services?
33. What is the difference between CAM and CAD?
34. When does identity theft occur?
35. What are the most common forms of identity theft?
36. When do victims usually discover new accounts?
37. What is Income tax identity theft?
38. What is the difference between phishing and pretexting?
39. What is pharming? How Does Pharming Work?
40. What is meant by malware? What are the types of malware?
41. What is a virus?
42. What is keystroke logging?
43. What is Antivirus? What is an antivirus program?
44. What is sandbox detection?
45. How do cloud applications differ from other applications?
46. What is a system administrator? What are the functions of a system administrator?
47. What do SRE Site Reliability Engineers do?
48. What is a security administrator?
49. What is a database administrator responsible for?
50. What is Iaas? What are the advantages of SaaS?
51. What are legal and illegal usages of keylogging?
52. How does antivirus software detect and remove viruses and malware?
53. When does cloud computing rely on? What is Cloud computing?
54. What do machine learning technologies do?

55. What are the duties of a web administrator?
56. Which type of fraud can be hard to spot, but easy to prevent?
57. When does phishing occur?
58. What are the responsibilities of a computer operator?
59. What is the best way to avoid identity thefts?
60. What is card scamming?

61. Text 1

The Information Age began from the first communication between humans in face-to-face interaction. Very soon humans created ways of sending messages and recording information for use over time by others. A lot of methods were not very convenient, but man's creative spirit kept on creating. Nowadays the technology for communicating face-to-face over long distances and for storing and transmitting massive amounts of information through the use of electricity and light waves was invented.

First electric pulses were sent over wire in 1729. Then, in 1831 the telegraph was invented, allowing information to be transmitted by code of long and short electrical signals. In 1866 these signals were first carried by cables under the Atlantic Ocean. Bell's invention of the telephone led to the development of a system that enabled people to have instantaneous voice communication with each other. It was in 1892.

The invention of television in the 1920s made it possible for people to see what is happening around the world. Normally, what we see is selected and edited first; but, more recently, and more frequently, there is direct, live broadcasting of actual events. So we have been able to watch important ceremonies, military operations, and other historical events as they occur.

62. Text 2

Miniaturization of electronic equipment has led to high-speed computers with very large memories as well as pocket-size computers. In some countries affordable prices have also led to widespread use of computers even outside of businesses.

An international electronic communications network of thousands of networks linking computers, began with one network, ARPANET, a U.S. government experiment in 1969. Now Internet is only one of many systems. The first inter-city fiber-optic phone system was installed, adding to the capacity of networks, in 1983. The networks become so complex that users need electronic tools to search the services and databases.

Other network systems and Internet allow "people in geographically distant lands to communicate across time zones without seeing each other ... information is available 24 hours a day from thousands of places". There is no "middleman". It can be real -time or delayed-time interaction. People are not restricted to direct communication with just a few people at a time. Electronic communication is a mixture of oral and written communication.

63. Text 3

The electronic networks have become the key international infrastructure of the 21st Century. But what do we know about such an important thing in computer technology like numerals?

Signs or symbols for graphic representation of numbers are numerals. The earliest forms of numerical notation were simply groups of straight lines, either vertical or horizontal, each line corresponding to

the number 1. Such a system was inconvenient when dealing with large numbers. The Romans created the system of number symbols which expresses all numbers from 1 to 1,000,000 with the help of seven symbols. Roman numerals are read from left to right and are still used today. It is not suitable for rapid written calculations.

In most parts of the world the Arabic system of numerical notation is used. It was first developed in India in the 3rd century BC. At that time the numerals 1, 4 and 6 were written in the same form as today. The Arabic system uses a positional notation, in which individual number symbols assume different values according to their position in the written numeral.

64. Text 4

A computer is a device made up of a combination of electronic and electromechanical components. By itself, a computer has no intelligence and is referred to as hardware. A computer system, doesn't come to life until it is connected to other parts of a system. A computer system is a combination of five elements:

Software.

People.

Hardware.

Procedures.

Data/information.

When one computer system is set up to communicate with another computer system, connectivity becomes the sixth system element. In other words, the manner in which the various individual systems are connected – for example, by phone lines, microwave transmission, or satellite - is an element of the total computer system.

Software is the term used to describe the instructions that tell the hardware how to perform a task; without software instructions, the hardware doesn't know what to do.

People, however, constitute the most important component of the computer system. People operate the computer hardware; they create the computer software instructions and respond to the procedures that those instructions present.

65. Text 5

Processing information is the basic job of computer. Computers accept information in the form of instruction called a programme and characters called data to perform mathematical and logical operations, and then give the results. Information is organized, processed, refined and useful for decision making while the data is raw material. And computer is used to convert data into information.

What is hardware?

The hardware is the mechanical, magnetic, electronic and electrical devices composing a computer system. There are four categories for a computer hardware: input hardware, processing hardware, storage hardware, output hardware.

Input hardware is used to collect data and convert it into a form suitable for computer processing. A keyboard is the most common input device. The mouse is a hand held device connected to the computer by small cable. The cursor moves across the screen when the mouse is rolled across the mouse pad. The cursor reaches the desired location and the user pushes a button on the mouse once or twice to signal a menu selection or a command to the computer.

66. Text 6

Retrieve, interpret and direct the execution of software instructions provided to the computer is the purpose of processing hardware. The most common components of processing hardware are the Central Processing Unit (CPU) and main memory.

The CPU is the brain of the computer. It reads and interprets software instructions and coordinates the processing activities that must take place. The design of the CPU affects the processing power and the speed of the computer, as well as the amount of main memory it can use effectively. If you have a well-designed CPU in your computer you can perform highly sophisticated tasks in a very short time.

Information is stored in the system of component of the computer which is called memory. Memory has two types:

- 1) RAM (random access memory) is the volatile computer memory. It is used for creating loading, and running programs and for manipulating and temporarily storing data;
- 2) ROM (read only memory) is nonvolatile, nonmodifiable computer memory. It is used to hold programmed instructions to the system.

The more memory you have in your computer, the more operations you can perform.

67. Text 7

Storage hardware

Its purpose is to store computer instructions and data in a form that is relatively permanent. Storage hardware serves the same basic functions as do office filing systems except that it stores data as electromagnetic signals. The most common ways of storing data are Hard disk (HDD), floppy disk and CD-ROM.

A hard disk is used for storing programs and relatively large amounts of data.

Diskette or floppy disk is thin, usually flexible plastic disk coated with magnetic material, for storing computer data and programs. One format for floppy disks: 5,25" is not used in modern computer systems because of its relatively large size, small capacity and flexibility. Another one 3,5" disks are formatted 1,44 megabytes and are widely used.

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74. Text 14

The Internet is used to search for and retrieve information on all sorts of topics in a wide variety of areas including the arts, business, government, humanities, news, politics and recreation. People communicate through electronic mail (e-mail), discussion groups, chat channels and other means of informational exchange. They share information and make commercial and business transactions. All this activity is possible because tens of thousands of networks are connected to the Internet and exchange information in the same basic ways.

A part of the Internet is WWW (the World Wide Web). It is information that is connected or linked together like a web. You access this information through one interface or tool called a Web browser. The number of resources and services that are part of the World Wide Web is growing extremely fast. By using a computer terminal (hardware) connected to a network that is a part of the Internet, and by using a program (software) to browse or retrieve information that is a part of the World Wide Web, the people connected to the Internet and World Wide Web through the local providers have access to a variety of information.

75. Text 15

William Henry Gates was born in Seattle, Washington, in 1955. Bill Gates is among the most famous people of science and engineering because he was the founder of Microsoft in 1975 together with Paul Allen, his partner in computer language development. While attending Harvard in 1975, Gates together with Allen developed a version of the BASIC computer programming language for the first personal computer. In the early 1980s, Gates led Microsoft's evolution from the developer of computer programming languages to a large computer software company. This transition began with the introduction of MS-DOS, the operating system for the new IBM Personal Computer in 1981. Gates also led Microsoft towards the introduction of application software such as the Microsoft Word processor. Much of Gates' success is based on his ability to translate technical visions into market strategy. Although Gates has accumulated great wealth from his holdings of Microsoft stock, he has been known as a tough competitor who seems to value winning in a competitive environment over money.

76. Text 1

Google expects a high price for its share

It's the world's most popular search engine. It also happens to be the first company confident enough, or silly enough, to promise in the paperwork for an initial public offering (IPO) of its shares "not to be evil". Clearly, Google is not accustomed to embarrassment or criticism. So it must have felt rather uncomfortable that many users of its site on July 26th - the very day that Google announced the expected price range for its IPO - got an error message. Google, it turned out, had been overloaded by the My Doom internet virus.

Google has been promising to democratize the IPO process. By this it means denying investment banks' most-valued customers the windfall they normally get from the deliberate underpricing of shares allocated to them in an IPO, so that the price jumps on the first day of trading. Instead, Google will let investors, including small ones, participate in an online Dutch auction. Google will then determine the IPO price to match supply and demand. Oddly, however, its egalitarian instincts are not preventing Google's management from going on a traditional road show for the next two weeks to schmooze big institutional investors.

Google expects a price between \$108 and \$135 a share, it said this week. That struck many as a bit rich, literally. A price per share as high as that seems old for a company that claims to like small investors. And it implies that Google is worth some \$36 billion, just shy of the value of Yahoo!

77. Text 2

Regardless of the state-of-art components and applications, computers are just not convenient enough. We need to understand too much of the tools and logic, instead of simply seeing the wanted outcome. Yet computers are appearing everywhere. Digitalization of audio, video and images allows computers to act as stereos. TVs, photo albums and communication appliances. Sensors and tags are emerging in everyday objects, making smart goods a part of the IT world as well. "The issue is that these new embedded features do not deliver the level of convenience, functionality or interfaces required by average users", said Dr. Joseph Reger, Chief Technology Officer of Fujitsu Siemens Computers.

Affordable computing and Internet access can be added into entertainment consoles, TVs, messaging phones etc. Companies are reaching for market share from other segments as soon as their product offers the slightest functionality. "In times when everyone is desperately seeking growth areas, the art of design, ease-of-use, simplicity, reliability, appropriate behaviour and classical usage practices are ignored", he said. "Embedding computing and Internet into anything will ignite a shift in the design of clients, servers, network and storage. Embedded services become a key element in the creation of networked and ubiquitous environments for the new devices", Reger said.

"It is our responsibility to hide the many networked devices around us. No one will regret if the big hardware boxes one day vanish into thin air", Reger said.

78. Text 3

"Products need to mimic the user's behaviour", said Dr. Joseph Reger, Chief Technology Officer of Fujitsu Siemens Computers. "A single device cannot serve all purposes. Dedicated invisible devices can be pre-configured to be 'maintenance-free', which fits the real need of certain services", he added.

"We need to move towards an invisible embedded service concept. A sensor in a car needs to book maintenance from a service station and appoint time from my calendar", he said. Devices rely on each other to provide the services and activities they are designed for - to overcome specialization in their own function. Reger said "Devices have to discover their environment and be interoperable. Value is based on how well they are able to exploit and exchange information with other devices.

"Think about place-mats with electronic paper displays in a fast-foot restaurant loaded with news and advertisements for local stores. Buy "today's special meal" and get the sport news thrown in!" Attractiveness of such services will not only make the digital devices look different, but will also become important in winning customers through meeting their needs better", he said.

Reger commented that Fujitsu Siemens Computers has set its strategic focus on next-generation Mobility and Business Critical Computing products, services and solutions to meet the evolving needs of our information society.

79. Text 4

Backend servers are becoming virtualized, remotely and dynamically allocated, all integrated with the needs of business processes. Dr. Reger, Chief Technology Officer of Fujitsu Siemens Computers, added that there is still work to do before the level of reliability, interoperability, flexibility and cost transparency required is available.

"Beyond showing information, most of computings in the background", he said. 'Invisible' data centres are already being built, driven by virtualization, automation and integration. Effective business process integration requires dynamic operation and efficient resource utilization. Invisible devices and embedded services require an infrastructure that seamlessly integrates databases, transactions, etc. "E-commerce needs to appear in an understandable form and deliver services that people identify with", Reger said.

New data centre designs are just the beginning. "We anticipate that the largest networked centres will be consolidated in a small number of places in the world, exploiting low-cost-off-shore locations." They will perform as interconnected centres, providing services to anyone, anywhere. "Reliability and robustness requirements for business critical needs are unconditional and uncompromising", said Reger.

Client devices and server infrastructures will both become more important in our lives, but also more invisible - and no-one will mind that one bit.

80. Text 5

"As the I LOVE YOU virus infected millions of systems around the globe, I became curious about how and why the virus spread so quickly", said Dr. Bruce V. Hartley, Technical Editor of the "Internet Security Advisor" magazine. "So I obtained a copy of the source code and began to go through it. Wow! What a nasty little program. As I walked through the code, it was clear this is more than just a worm. The program is malicious in that it searches for numerous file types, such as .jpeg, .vbs, and .mp3, and overwrites them with itself. Therefore, at a minimum, it destroys files on local machines and alters contents.

The I LOVE YOU virus does other things as well, but clearly its goal is to replicate and spread as far as it can. In addition, to achieve this goal, it creates a framework for re-infection after it is indentified. In fact, in one portion of the code, it even includes a text message warning a user who might be trying to disinfect a machine not to delete the script file or it will corrupt Windows, causing it to run incorrectly. I was also surprised by how easily the software products and tools we use and rely on to conduct business everyday can be exploited. The virus launches an application, is able to access files used by that application, and causes it to perform specific actions, all from a script file. Think about it. The software you use every day and rely on for serious business use can be easily manipulated. Worse, your hardware, in this case your hard drive, can be accessed and files can be overwritten without your knowledge or consent."

81. Text 6

Why did the I LOVE YOU virus spread so fast? One reason is the way the virus executes, and how it appears to come from a known and probably trusted source. The real question why did everyone open an unsolicited and unexpected executable attachment? Didn't they know about the potential risks associated with executable files? Probably not. Obviously, we need to be more careful about

opening executable attachments and to make sure we get this word out loud and clear. Perhaps now is a good time to re-evaluate your e-mail security policy as well as consider increasing, or possibly starting a security awareness program. In fact, you could walk your staff through the I LOVE YOU source as a case study on the risks associated with executable mail attachments!

A good security awareness program should provide users with an understanding of the security requirements, the rationale for the requirements, and the mechanisms used to provide the desired level of protection. Be honest and address what's at stake. Most people won't support a policy or set of requirements they don't understand or believe in. This is where it's critical to not just say we have to protect our confidential information, but to discuss why it's so important and the potential consequences or effects if security is breached. Security breaches usually cost time, money, and in some rare cases, jobs or entire companies. The stakes are big, and everyone must understand the potential risks.

82. Text 7

The rapid spread of the I LOVE YOU virus also highlights the need for a more formal incident response capability. If I get infected with a virus, what do I do? Who do I contact? These procedures should be well-defined and understood to help limit the spread of such programs. What else can you do? Well, you can consider keeping virus protection software up-to-date and ensure that it's being used.

If you don't have a virus protection or malicious logic policy, now is a good time to develop one. Identifying and standardizing on a single virus protection software package is also a good idea. Also, consider running a complete, routine virus scan against all files, which can significantly reduce the risks associated with viruses and malicious logic. But virus protection is often a cure for yesterday's problem, not necessity for tomorrow's new risk.

Another common approach to protecting corporate assets, is to create a policy that only lets specific applications software be installed on company systems. A formal software policy can help keep your company legal with regard to software licenses and reduce other problems associated with unsupported applications, including malicious logic or viruses. A policy can keep most folks honest, but to be sure, an auditing mechanism or process is required.

83. Text 8

Computers come in a variety of sizes and shapes and with a variety of processing capabilities. The earliest computers were quite large because of the crude technologies used; as technological improvements were made in computer components, the overall size of computers began to shrink. Today, the complete CPU (central processing unit) of a computer can be smaller than a postage stamp.

To provide a basis for comparing their capabilities, computers are generally grouped into four basic categories: supercomputers, which are the powerful giants of the computer world; mainframe computers, which are large, extremely powerful computers used by many large companies; minicomputers, which are the next most powerful; and microcomputers, which are the least powerful - but which you most likely will be required to use in business. It's hard to assign a worthwhile definition to each type of computer because definitions can get bogged down in potentially confusing technical jargon.

In general, a computer's type is determined by the following seven factors:

- the type of CPU;
- the amount of main memory the CPU can use;
- the capacity of the storage devices;
- the speed of the output devices;
- the processing speed in millions of instructions per second (mips);

- the number of users that can access the computer at one time;
- the cost of the computer system.

It's difficult to say exactly what kind of computer you will be using in the business environment.

84. Text 9

Chances are that when you enter the business environment you will be required to know how to use a microcomputer to perform many of your job-related functions. It is therefore critical that you understand the typical components of a microcomputer system in order to use it effectively and talk about it intelligently. The more you know about it, the more valuable you will be to a current or potential employer. To understand the tremendous role microcomputers now play in business, it's helpful to look at how that role has developed. With the introduction of the Apple II and the Radio Shack Model I and II systems in the late 1970s, the business community began to adopt microcomputers. Then a number of additional vendors, including Atari, Commodore, Osborne and Kaypro, entered the marketplace with computers designed to be used in the office or in the office or in the home. The interest in microcomputers grew rather slowly at first for several reasons:

1. The initial cost for some microcomputer systems was quite high, ranging up to \$6,000.
2. The average person did not have sufficient background in computer-related subjects to use the computer without difficulty.
3. There were no industry wide standards to ensure the compatibility - that is, the usability - of data and software on different types of microcomputer systems.

However, when IBM introduced the IBM PC, so many businesses adopted the product that an industry standard was set. Most vendors now design their products to be compatible with this standard.

85. Text 10

The first large-scale electronic computer, the Electronic Numerical Integrator and Computer (ENIAC) became operational in 1946. It contained approximately 18,000 electronic vacuum tubes - tubes the size of light bulbs that controlled the flow of electric current. The ENIAC, which weighed 30 tons and occupied about 1,500 square feet of floor space - huge machine compared to today's standards - was able to perform a scientific calculation involving the multiplication of four numbers in approximately 9 milliseconds (9/1,000ths of a second). Since that time, the technology used in the design and production of computers has accelerated at a remarkable pace.

The term "generation" was applied to different types of computers to help delineate the major technological developments in hardware and software. To date, computer technology has evolved through four distinct generations and is currently developing into a fifth generation. As you read about each generation, you should be thinking about how each has affected data processing, because each development has had (and in the case of the later generations, will continue to have) an effect on you - on the job and in society in general.

86. Text 11

Computers

First generation (1944-1958) - Most input and output media were punched cards and magnetic tape, and main memory was almost exclusively made up of hundreds of vacuum tubes - although one computer used a magnetic drum for main memory. These computers were slow and large and produced a tremendous amount of heat. they could run only one program at a time.

Second generation (1959-19630) - By the early 1960s, transistors and some other solid-state devices that were much smaller than vacuum tubes were being used for much of the computer circuitry. Magnetic cores, which looked like very small metal washers strung together by wires that carried electricity, became the most widely used type of main memory. Removable magnetic disk packs, stacks of disks connected by a common spindle (like a stack of records), were introduced as storage devices. Second-generation machines tended to be smaller, more reliable, and significantly faster than first-generation computers.

Third generation (1964-1970) - The integrated circuit - a complete electronic circuit on a silicon chip - replaced transistorized circuitry. The use of magnetic disks became widespread, and computers began to support such capabilities as multiprogramming and timesharing (people using the same computer simultaneously). Minicomputers were being widely used by the early 1970s. The production of operating systems - a type of systems software - and applications software packages increased rapidly. The size of computers continued to decrease.

87. Text 12

Computers

Fourth generation (1970-Now) - in 1971, the first electronic computers were introduced that used Large-Scale Integration (LSI) circuits - thousands of integrated circuits on a chip - for main memory and logic circuitry (the circuitry that performs the logical operations of the CPU; different types of chips had different functions). These computers had a much larger capacity to support main memory. this period has also seen increased use of input and output devices that allowed data and instructions to be entered directly through the keyboard. The microprocessor, introduced in 1971, combined all of the circuitry for the central processing unit on a single chip. LSI and the microprocessor enabled the development of the supercomputer.

Fifth generation (now and in the Future) Definitions of what constitutes fifth-generation computers do not always agree. Some people think that the new microcomputers with faster operating speeds, greater processing capacity, and virtually unlimited memory should be included. Other people believe that fifth-generation computers will have circuitry based on gallium arsenide. Gallium arsenide offers a fivefold speed increase and uses only one tenth of the power that silicon uses. Scientists have also tried to develop new superconductors that can conduct electricity with no resistance, thus generating no heat but great speed.

88. Text 13

A computer is an electronic device that store, retrieve and process data, perform calculation and present results based on a program given to it by a programmer.

New generations of computer technology will continue to affect the processing of data and information. Data collection continues to become easier and easier, data processing is getting faster and faster, mathematical calculations continue to be performed with increased precision, and information is being provided to users in generally more useful forms. And one of the best improvements that new technology brings us is that computers continue to become easier to use.

Before computers were invented, data was collected and processed by hand in a variety of tedious ways. And the data often had to be recopied more than once before it could be processed into information. Data collection for early computers was often done by transcribing hardcopy data into computer-usable forms such as punched cards or paper tape. The data was recorded by punching a series of holes according to a standardized coding scheme. Technological advancements in data collection have made this cumbersome collection method almost obsolete. Fortunately, the technology for data collection has advanced to the point where such methods have become extremely rare.

No wonder that so many businesses have adopted computers so readily. Quick and easy production of accurate information has become a reality to businesspeople.

89. Text 14

In 1890, the U.S.Congress authorized the Census Office to hold a competition to select the most efficient new method for recording and tabulating the census. Herman Hollerith won the contest with the system for electric tabulating using data input on punched cards. Although at the time the speed of the data processing method was a major breakthrough - it took Hollerith six weeks to compute an unofficial census - a modern personal computer can process the same amount of data in about half the time, after capturing it in a computer-usable form.

Thanks to the science of ergonomics (also called human engineering), which designs things to be easily used by people, the convenience of computer use has also improved over the years. Many people have been afraid of computers, but great strides have been made in transforming the computer into a friendlier, less mysterious tool. Input devices have become easier to use, and software is easier to understand than ever before.

In addition to being fast and easy to use, the computer also brings us a math facility that many of us thought was eternally beyond our reach. Have you ever had difficulty balancing your checkbook or creating a budget? Or is your life overshadowed by math anxiety? Many of us find it difficult to consistently perform mathematical calculations accurately by hand. Sooner or later we make a mistake. One of the major advantages of a computer is that, with the proper software, it will perform calculations quickly and accurately, with much greater precision and speed than would be possible manually.

90. Text 15

Everything is connected to everything else. A change in one area will cause changes in other areas, even if they aren't readily apparent to us. This means that with opportunities also come problems. We are learning this lesson, for example, in the area of ecology. Are we also learning it in relation to the computer's growing role in business and society?

This question is becoming more important as information technology replaces energy as society's main resource. Many people are concerned that too much emphasis has been put on what the computer can do to streamline business and too little on how it may be affecting the quality of our lives. For example, is it distorting the meaning of thought? That is, is it absurd and dangerous to attribute the capabilities of thinking and creativity to a computer? People have experience, convictions, and cultural traditions. Are these qualities being devalued? If so, perhaps we are heading into an era in which machinelike qualities of speed and problem solving will be valued more highly than what used to be called humane qualities.

Many people believe that the computer's level of 'thinking' can be compared simply to a muscle spasm and that too many computer enthusiasts are confusing data with ideas. After all, nothing is information until a person interprets it. And information is not the same as knowledge, which is gained by thinking. Further, knowledge can be gained without new information being received by the thinker.

8. Материально-техническое и учебно-методическое обеспечение дисциплины

8.1. Перечень основной и дополнительной учебной литературы

Основная литература

1. ПОГРЕБНЯК Н.В. Иностранный язык (английский) в сфере интернет-технологий: учеб. пособие / ПОГРЕБНЯК Н.В., Карамышева С.Г.. - Краснодар: КубГАУ, 2022. - 136 с. - 978-5-907550-89-6. - Текст: непосредственный.

2. КАРАМЫШЕВА С.Г. Английский язык в эпоху информационных технологий: сфера исследований, производства и развлечений: учеб. пособие / КАРАМЫШЕВА С.Г., Погребняк Н. В.. - Краснодар: КубГАУ, 2022. - 114 с. - 978-5-907597-68-6. - Текст: непосредственный.

Дополнительная литература

1. ЕВДОКИМОВА Н.В. Английский язык для IT-специалистов: продвинутый уровень: учебник / ЕВДОКИМОВА Н.В.. - Ростов н/Д: Феникс, 2014. - 335 с. - 978-5-222-22246-1. - Текст: непосредственный.

2. Симхович,, В. А. Практическая грамматика английского языка = Practical English Grammar: учебное пособие / В. А. Симхович,. - Практическая грамматика английского языка = Practical English Grammar - Минск: Вышэйшая школа, 2014. - 328 с. - 978-985-06-2487-1. - Текст: электронный // IPR SMART: [сайт]. - URL: <https://www.iprbookshop.ru/35529.html> (дата обращения: 08.10.2025). - Режим доступа: по подписке

3. Лавриненко,, И. Ю. Английский язык для IT-специалистов: учебное пособие / И. Ю. Лавриненко,, В. В. Козлова,. - Английский язык для IT-специалистов - Воронеж: Воронежский государственный технический университет, ЭБС АСВ, 2021. - 150 с. - 978-5-7731-0981-5. - Текст: электронный // IPR SMART: [сайт]. - URL: <https://www.iprbookshop.ru/118636.html> (дата обращения: 08.10.2025). - Режим доступа: по подписке

4. Ещеркина,, Л. В. Английский язык для IT-специальностей: практикум / Л. В. Ещеркина,, Е. А. Скачкова,. - Английский язык для IT-специальностей - Челябинск: Южно-Уральский технологический университет, 2023. - 81 с. - 978-5-6049938-8-0. - Текст: электронный // IPR SMART: [сайт]. - URL: <https://www.iprbookshop.ru/136678.html> (дата обращения: 08.10.2025). - Режим доступа: по подписке

8.2. Профессиональные базы данных и ресурсы «Интернет», к которым обеспечивается доступ обучающихся

Профессиональные базы данных

Не используются.

Ресурсы «Интернет»

1. <https://znanium.com/>
- Znanium.com
2. <http://elibrary.rsl.ru/> - Электронная библиотека Российской государственной библиотеки
3. <http://www.iprbookshop.ru/> - Электронный библиотечный ресурс
4. <https://edu.kubsau.ru/> - Образовательный портал КубГАУ
5. <http://e.lanbook.com/> - Электронный библиотечный ресурс
6. <http://elibrary.ru/defaultx.asp> - Научная электронная библиотека
7. <http://www.iqlib.ru> - Электронная библиотека IQlib
8. <http://www.lingvo-online.ru/ru> - ABBYY Lingvo Live
9. <https://lingualeo.com/ru> - Lingualeo иностранные языки онлайн
10. <https://www.multitran.ru/> - Словарь «Мультитран»
11. http://www.minfin.ru/ru/accounting/mej_standart_fo/docs - Минфин России: Документы МСФО:

8.3. Программное обеспечение и информационно-справочные системы, используемые при осуществлении образовательного процесса по дисциплине

Информационные технологии, используемые при осуществлении образовательного процесса по дисциплине позволяют:

- обеспечить взаимодействие между участниками образовательного процесса, в том числе синхронное и (или) асинхронное взаимодействие посредством сети «Интернет»;
- фиксировать ход образовательного процесса, результатов промежуточной аттестации по дисциплине и результатов освоения образовательной программы;
- организовать процесс образования путем визуализации изучаемой информации посредством использования презентаций, учебных фильмов;
- контролировать результаты обучения на основе компьютерного тестирования.

Перечень лицензионного программного обеспечения:

- 1 Microsoft Windows - операционная система.
- 2 Microsoft Office (включает Word, Excel, Power Point) - пакет офисных приложений.

Перечень профессиональных баз данных и информационных справочных систем:

1 Гарант - правовая, <https://www.garant.ru/>

2 Консультант - правовая, <https://www.consultant.ru/>

3 Научная электронная библиотека eLibrary - универсальная, <https://elibrary.ru/>

Доступ к сети Интернет, доступ в электронную информационно-образовательную среду университета.

Перечень программного обеспечения

(обновление производится по мере появления новых версий программы)

1. Dr.Web;
2. Антиплагиат;
3. Вебинар;
4. ПО "1С:Предприятие 8 ПРОФ. 1С:Университет ПРОФ";
5. Microsoft Windows 7 Professional 64 bit;

Перечень информационно-справочных систем

(обновление выполняется еженедельно)

Не используется.

8.4. Специальные помещения, лаборатории и лабораторное оборудование

Университет располагает на праве собственности или ином законном основании материально-техническим обеспечением образовательной деятельности (помещениями и оборудованием) для реализации программы бакалавриата, специалитета, магистратуры по Блоку 1 "Дисциплины (модули)" и Блоку 3 "Государственная итоговая аттестация" в соответствии с учебным планом.

Каждый обучающийся в течение всего периода обучения обеспечен индивидуальным неограниченным доступом к электронной информационно-образовательной среде университета из любой точки, в которой имеется доступ к информационно-телекоммуникационной сети "Интернет", как на территории университета, так и вне его. Условия для функционирования электронной информационно-образовательной среды могут быть созданы с использованием ресурсов иных организаций.

Учебная аудитория

515гд

вешалка - 1 шт.

доска классная - 1 шт.

парты - 16 шт.

стол одностумбовый - 1 шт.

стул - 2 шт.

шкаф - 1 шт.

629гл

доска марк. PREMIUM LEGAMASTER 100×150 - 1 шт.

парты - 1 шт.

стол - 1 шт.

стул компьютерный - 1 шт.

стул твердый - 1 шт.

шкаф книжный - 1 шт.

302зоо

доска марк. PREMIUM LEGAMASTER 100×150 - 1 шт.

Магнитола CD/MP3,дека, FM тюнер - 1 шт.

парты - 11 шт.

Стол одностумбовый - 1 шт.

Стул жесткий - 1 шт.

Шкаф книжный - 1 шт.

303зоо

Доска классная - 1 шт.

Компьютерное кресло - 1 шт.

парты - 16 шт.

стелаж - 1 шт.

Стол однотумбовый - 1 шт.

Шкаф книжный - 1 шт.

304зоо

Вешалка для одежды - 1 шт.

Доска классная - 1 шт.

жалюзи - 2 шт.

компьют. EG/H55/2X1Gb/320Gb - 0 шт.

стол однотумбовый - 1 шт.

стол ученический - 11 шт.

Стул мягкий черный - 21 шт.

шкаф книжный - 2 шт.

308зоо

доска ДК11Э2010 - 1 шт.

доска интерактивная SMART 680 iv - 1 шт.

доска классная - 1 шт.

доска магнитно-маркерная - 1 шт.

доска марк. PREMIUM LEGAMASTER 100×150 - 1 шт.

жалюзи вертикальные - 1 шт.

Магнитола CD/MP3,дека, FM тюнер - 1 шт.

ноутбук HP ProBook 4530s 15.6" - 1 шт.

парты - 1 шт.

Сплит-система LS-H18KPA2/LU-H18KPA2 - 1 шт.

стелаж - 1 шт.

Шкаф для документов - 2 шт.

шкаф платяной - 1 шт.

324зоо

вешалка настенная - 1 шт.

доска интеракт. Smart technologien Board 660 - 1 шт.

доска марк. PREMIUM LEGAMASTER 100×150 - 1 шт.

парты - 13 шт.

проектор Bend MX613ST - 1 шт.

Стол однотумбовый - 1 шт.

Стол письменный - 1 шт.

стул полумягкий - 1 шт.

стул твердый - 1 шт.

шкаф книжный - 4 шт.

350зоо

Доска классная - 1 шт.

доска марк. PREMIUM LEGAMASTER 100×150 - 1 шт.

Облучатель-рециркулятор воздуха 600 - 1 шт.

Парты - 15 шт.

стул твердый - 2 шт.

Шкаф книжный - 1 шт.

шкаф комбинированный - 1 шт.

шкаф плотяной - 1 шт.

405зоо

Вешалка для одежды - 1 шт.

Доска классная - 1 шт.

доска марк. PREMIUM LEGAMASTER 100×150 - 1 шт.

Интерактивная панель Samsung - 0 шт.

Парты - 16 шт.

стол одностумбовый - 1 шт.

стул полумягкий - 2 шт.

шкаф книжный - 1 шт.

424300

Вешалка для одежды - 1 шт.

доска марк. PREMIUM LEGAMASTER 100×150 - 1 шт.

Магнитола CD/MP3,дека, FM тюнер - 1 шт.

парты - 9 шт.

стол одностумбовый - 1 шт.

Стул мягкий черный - 1 шт.

стул твердый - 1 шт.

шкаф книжный - 1 шт.

шкаф комбинированный - 1 шт.

431300

Вешалка для одежды - 1 шт.

кресло руководителя - 1 шт.

парты - 6 шт.

стол одностумбовый - 1 шт.

Стул мягкий черный - 12 шт.

тумбоска на колесиках - 1 шт.

Шкаф книжный - 1 шт.

шкаф комбинированный - 1 шт.

021300

Парта - 16 шт.

Компьютерный класс

226гл

Интерактивная панель Samsung - 1 шт.

Персональный компьютер HP 6300 Pro SFF/Core i3-3220/4GB/500GB/NoODD/Win7Pro - 1 шт.

Сплит-система LS-H12KPA2/LU-H12KPA2 - 1 шт.

9. Методические указания по освоению дисциплины (модуля)

Учебная работа по направлению подготовки осуществляется в форме контактной работы с преподавателем, самостоятельной работы обучающегося, текущей и промежуточной аттестаций, иных формах, предлагаемых университетом. Учебный материал дисциплины структурирован и его изучение производится в тематической последовательности. Содержание методических указаний должно соответствовать требованиям Федерального государственного образовательного стандарта и учебных программ по дисциплине. Самостоятельная работа студентов может быть выполнена с помощью материалов, размещенных на портале поддержки Moodle.

Методические указания по формам работы

Лекционные занятия

Передача значительного объема систематизированной информации в устной форме достаточно большой аудитории. Дает возможность экономно и систематично излагать учебный материал. Обучающиеся изучают лекционный материал, размещенный на портале поддержки обучения Moodle.

Лабораторные занятия

Практическое освоение студентами научно-теоретических положений изучаемого предмета, овладение ими техникой экспериментирования в соответствующей отрасли науки. Лабораторные занятия проводятся с использованием методических указаний, размещенных на образовательном портале университета.

Описание возможностей изучения дисциплины лицами с ОВЗ и инвалидами

Для инвалидов и лиц с ОВЗ может изменяться объём дисциплины (модуля) в часах, выделенных на контактную работу обучающегося с преподавателем (по видам учебных занятий) и на самостоятельную работу обучающегося (при этом не увеличивается количество зачётных единиц, выделенных на освоение дисциплины).

Фонды оценочных средств адаптируются к ограничениям здоровья и восприятия информации обучающимися.

Основные формы представления оценочных средств – в печатной форме или в форме электронного документа.

Формы контроля и оценки результатов обучения инвалидов и лиц с ОВЗ с нарушением зрения:

- устная проверка: дискуссии, тренинги, круглые столы, собеседования, устные коллоквиумы и др.;

- с использованием компьютера и специального ПО: работа с электронными образовательными ресурсами, тестирование, рефераты, курсовые проекты, дистанционные формы, если позволяет острота зрения - графические работы и др.;

- при возможности письменная проверка с использованием рельефно-точечной системы Брайля, увеличенного шрифта, использование специальных технических средств (тифлотехнических средств): контрольные, графические работы, тестирование, домашние задания, эссе, отчеты и др.

Формы контроля и оценки результатов обучения инвалидов и лиц с ОВЗ с нарушением слуха:

- письменная проверка: контрольные, графические работы, тестирование, домашние задания, эссе, письменные коллоквиумы, отчеты и др.;

- с использованием компьютера: работа с электронными образовательными ресурсами, тестирование, рефераты, курсовые проекты, графические работы, дистанционные формы и др.;

- при возможности устная проверка с использованием специальных технических средств (аудиосредств, средств коммуникации, звукоусиливающей аппаратуры и др.): дискуссии, тренинги, круглые столы, собеседования, устные коллоквиумы и др.

Формы контроля и оценки результатов обучения инвалидов и лиц с ОВЗ с нарушением опорно-двигательного аппарата:

- письменная проверка с использованием специальных технических средств (альтернативных средств ввода, управления компьютером и др.): контрольные, графические работы, тестирование, домашние задания, эссе, письменные коллоквиумы, отчеты и др.;

- устная проверка, с использованием специальных технических средств (средств коммуникаций): дискуссии, тренинги, круглые столы, собеседования, устные коллоквиумы и др.;

- с использованием компьютера и специального ПО (альтернативных средств ввода и управления компьютером и др.): работа с электронными образовательными ресурсами, тестирование, рефераты, курсовые проекты, графические работы, дистанционные формы предпочтительнее обучающимся, ограниченным в передвижении и др.

Адаптация процедуры проведения промежуточной аттестации для инвалидов и лиц с ОВЗ.

В ходе проведения промежуточной аттестации предусмотрено:

- предъявление обучающимся печатных и (или) электронных материалов в формах, адаптированных к ограничениям их здоровья;

- возможность пользоваться индивидуальными устройствами и средствами, позволяющими адаптировать материалы, осуществлять приём и передачу информации с учетом их

индивидуальных особенностей;

- увеличение продолжительности проведения аттестации;
- возможность присутствия ассистента и оказания им необходимой помощи (занять рабочее место, передвигаться, прочитать и оформить задание, общаться с преподавателем).

Формы промежуточной аттестации для инвалидов и лиц с ОВЗ должны учитывать индивидуальные и психофизические особенности обучающегося/обучающихся по АООП ВО (устно, письменно на бумаге, письменно на компьютере, в форме тестирования и т.п.).

Специальные условия, обеспечиваемые в процессе преподавания дисциплины студентам с нарушениями зрения:

- предоставление образовательного контента в текстовом электронном формате, позволяющем переводить плоскостную информацию в аудиальную или тактильную форму;
- возможность использовать индивидуальные устройства и средства, позволяющие адаптировать материалы, осуществлять приём и передачу информации с учетом индивидуальных особенностей и состояния здоровья студента;
- предоставление возможности предкурсового ознакомления с содержанием учебной дисциплины и материалом по курсу за счёт размещения информации на корпоративном образовательном портале;
- использование чёткого и увеличенного по размеру шрифта и графических объектов в мультимедийных презентациях;
- использование инструментов «лупа», «проектор» при работе с интерактивной доской;
- озвучивание визуальной информации, представленной обучающимся в ходе занятий;
- обеспечение раздаточным материалом, дублирующим информацию, выводимую на экран;
- наличие подписей и описания у всех используемых в процессе обучения рисунков и иных графических объектов, что даёт возможность перевести письменный текст в аудиальный;
- обеспечение особого речевого режима преподавания: лекции читаются громко, разборчиво, отчётливо, с паузами между смысловыми блоками информации, обеспечивается интонирование, повторение, акцентирование, профилактика рассеивания внимания;
- минимизация внешнего шума и обеспечение спокойной аудиальной обстановки;
- возможность вести запись учебной информации студентами в удобной для них форме (аудиально, аудиовизуально, на ноутбуке, в виде пометок в заранее подготовленном тексте);
- увеличение доли методов социальной стимуляции (обращение внимания, апелляция к ограничениям по времени, контактные виды работ, групповые задания и др.) на практических и лабораторных занятиях;
- минимизирование заданий, требующих активного использования зрительной памяти и зрительного внимания;
- применение поэтапной системы контроля, более частый контроль выполнения заданий для самостоятельной работы.

Специальные условия, обеспечиваемые в процессе преподавания дисциплины студентам с нарушениями опорно-двигательного аппарата (маломобильные студенты, студенты, имеющие трудности передвижения и патологию верхних конечностей):

- возможность использовать специальное программное обеспечение и специальное оборудование и позволяющее компенсировать двигательное нарушение (коляски, ходунки, трости и др.);
- предоставление возможности предкурсового ознакомления с содержанием учебной дисциплины и материалом по курсу за счёт размещения информации на корпоративном образовательном портале;
- применение дополнительных средств активизации процессов запоминания и повторения;
- опора на определенные и точные понятия;
- использование для иллюстрации конкретных примеров;
- применение вопросов для мониторинга понимания;
- разделение изучаемого материала на небольшие логические блоки;
- увеличение доли конкретного материала и соблюдение принципа от простого к сложному при объяснении материала;
- наличие чёткой системы и алгоритма организации самостоятельных работ и проверки заданий с обязательной корректировкой и комментариями;

- увеличение доли методов социальной стимуляции (обращение внимания, апелляция к ограничениям по времени, контактные виды работ, групповые задания др.);
- обеспечение беспрепятственного доступа в помещения, а также пребывания в них;
- наличие возможности использовать индивидуальные устройства и средства, позволяющие обеспечить реализацию эргономических принципов и комфортное пребывание на месте в течение всего периода учёбы (подставки, специальные подушки и др.).

Специальные условия, обеспечиваемые в процессе преподавания дисциплины студентам с нарушениями слуха (глухие, слабослышащие, позднооглохшие):

- предоставление образовательного контента в текстовом электронном формате, позволяющем переводить аудиальную форму лекции в плоскостную информацию;
- наличие возможности использовать индивидуальные звукоусиливающие устройства и сурдотехнические средства, позволяющие осуществлять приём и передачу информации; осуществлять взаимнообратный перевод текстовых и аудиофайлов (блокнот для речевого ввода), а также запись и воспроизведение зрительной информации;
- наличие системы заданий, обеспечивающих систематизацию вербального материала, его схематизацию, перевод в таблицы, схемы, опорные тексты, глоссарий;
- наличие наглядного сопровождения изучаемого материала (структурно-логические схемы, таблицы, графики, концентрирующие и обобщающие информацию, опорные конспекты, раздаточный материал);
- наличие чёткой системы и алгоритма организации самостоятельных работ и проверки заданий с обязательной корректировкой и комментариями;
- обеспечение практики опережающего чтения, когда студенты заранее знакомятся с материалом и выделяют незнакомые и непонятные слова и фрагменты;
- особый речевой режим работы (отказ от длинных фраз и сложных предложений, хорошая артикуляция; четкость изложения, отсутствие лишних слов; повторение фраз без изменения слов и порядка их следования; обеспечение зрительного контакта во время говорения и чуть более медленного темпа речи, использование естественных жестов и мимики);
- чёткое соблюдение алгоритма занятия и заданий для самостоятельной работы (называние темы, постановка цели, сообщение и запись плана, выделение основных понятий и методов их изучения, указание видов деятельности студентов и способов проверки усвоения материала, словарная работа);
- соблюдение требований к предъявляемым учебным текстам (разбивка текста на части; выделение опорных смысловых пунктов; использование наглядных средств);
- минимизация внешних шумов;
- предоставление возможности соотносить вербальный и графический материал; комплексное использование письменных и устных средств коммуникации при работе в группе;
- сочетание на занятиях всех видов речевой деятельности (говорения, слушания, чтения, письма, зрительного восприятия с лица говорящего).

Специальные условия, обеспечиваемые в процессе преподавания дисциплины студентам с прочими видами нарушений (ДЦП с нарушениями речи, заболевания эндокринной, центральной нервной и сердечно-сосудистой систем, онкологические заболевания):

- наличие возможности использовать индивидуальные устройства и средства, позволяющие осуществлять приём и передачу информации;
- наличие системы заданий, обеспечивающих систематизацию вербального материала, его схематизацию, перевод в таблицы, схемы, опорные тексты, глоссарий;
- наличие наглядного сопровождения изучаемого материала;
- наличие чёткой системы и алгоритма организации самостоятельных работ и проверки заданий с обязательной корректировкой и комментариями;
- обеспечение практики опережающего чтения, когда студенты заранее знакомятся с материалом и выделяют незнакомые и непонятные слова и фрагменты;
- предоставление возможности соотносить вербальный и графический материал; комплексное использование письменных и устных средств коммуникации при работе в группе;
- сочетание на занятиях всех видов речевой деятельности (говорения, слушания, чтения, письма, зрительного восприятия с лица говорящего);
- предоставление образовательного контента в текстовом электронном формате;

- предоставление возможности предкурсового ознакомления с содержанием учебной дисциплины и материалом по курсу за счёт размещения информации на корпоративном образовательном портале;
- возможность вести запись учебной информации студентами в удобной для них форме (аудиально, аудиовизуально, в виде пометок в заранее подготовленном тексте);
- применение поэтапной системы контроля, более частый контроль выполнения заданий для самостоятельной работы;
- стимулирование выработки у студентов навыков самоорганизации и самоконтроля;
- наличие пауз для отдыха и смены видов деятельности по ходу занятия.

10. Методические рекомендации по освоению дисциплины (модуля)

Учебная работа по направлению подготовки осуществляется в форме контактной работы с преподавателем, самостоятельной работы обучающегося, текущей и промежуточной аттестаций, иных формах, предлагаемых университетом. Учебный материал дисциплины структурирован и его изучение производится в тематической последовательности. Содержание методических рекомендации должно соответствовать требованиям Федерального государственного образовательного стандарта и учебных программ по дисциплине. Самостоятельная работа студентов может быть выполнена с помощью материалов, размещенных на портале поддержки Moodle.