Наименование дисциплины и код: **Computer science**, group TA-1-19

Лектор	
Контактная информация:	Chair of Applied Computer Science Phone: 32-51-20
Количество кредитов:	8 credits/ 120 hours
Дата:	**2019-2020, I, II semester**
Цель и задачи курса	This course provides an overview of the popular components of the Microsoft Office suite: Word, Excel, Access, and PowerPoint. The basics of each program will be covered. It is not the objective of this course to build proficiency in any one of the application program. **Goals:** • To have a fundamental and working knowledge of Microsoft Office 2010 • Integration of all three Microsoft Office programs to create larger and more detailed projects
Описание курса	The widespread application of Computer Science, as embodied in the tools and techniques for gathering, manipulating, analyzing and disseminating information, made possible because of dramatic improvements in computer and telecommunications technologies, has significantly changed society. A large proportion of business transactions is performed over computer networks. Multi-media computers have had a significant impact on the way in which people learn and on the way they seek entertainment. Moreover, the increased integration of computer and telecommunications technology, exemplified by the Internet and associated technologies, has led to an increased globalization of the world economy. Computer Science, including the Internet, has significantly changed personal communication, commerce and the way in which academic research is conducted. Moreover, continuing developments in this field, including the increased use of mobile networks and the further improvement and decreasing cost of computer hardware, mean that the world has not seen the last of these changes. There are separate one-credit courses that can be taken to increase skill development in the individual programs. • Introduce the fundamentals of computers, technology, and related terminology. • Introduction to three Microsoft Office 2010 programs (MS Word, MS Excel, MS PowerPoint and MS Access), with Windows 7 • Provide lecture to introduce, explain, and recommend proper methodology when working with Microsoft Office products, and how it relates to the business environment. • Perform hands-on assignments to reinforce those concepts introduced during lecture while allowing the student to get more comfortable with using computers.

Пре реквизиты	PRE-REQUISITES OF THE SYLLABUS Any person with a good grasp of the Secondary Education Certificate (SEC) Information Technology or Mathematics syllabuses, or their equivalent, should be able to pursue the course of study defined by this syllabus. However, successful participation in the course of study will also depend on the possession of good verbal and written communication skills.
Пост реквизиты	The skills that students are expected to have developed on completion of this syllabus have been grouped under three headings: (I) Knowledge and Comprehension; (II) Application and Analysis; (III) Synthesis and Evaluation.
Компетенции	Knowledge and Comprehension The ability to: - identify, recall, and grasp the meaning of basic facts, concepts and principles; - select appropriate ideas, match, compare and cite examples of facts, concepts, and principles in familiar situations; - explain phenomena in terms of generally applicable principles. Application and Analysis The ability to: - use facts, concepts, principles and procedures in unfamiliar situations; - transform data accurately and appropriately and use common characteristics as a basis for classification; - identify and recognise the component parts of a whole and interpret the relationships between those parts; - identify causal factors and show how they interact with each other; infer, predict and draw conclusions; - recognise the limitations and assumptions of data gathered in an attempt to solve a problem Synthesis and Evaluation The ability to: - make reasoned judgements and recommendations based on the value of ideas and information and their implications; - use the computer and computer-based tools to solve problems; - justify the appropriate application of techniques of problem-solving; - select, justify and apply appropriate techniques and principles to develop data structures and application programs for the solution of a problem.
Политика курса	The syllabus aims to: 1. develop a range of cognitive skills, including critical thinking skills; 2. develop an understanding of the components, the architecture and the organisation of a computer system; 3. equip students with the knowledge necessary to make informed decisions about the selection of components of computer systems; 4. develop an understanding of the problem-solving process; 5. equip students with skills to create algorithms to solve problems; 6. develop skills to write correct programs to solve problems;

	7. develop an understanding of the concepts of software engineering; STUDENT CONDUCT Students will be prompt and on time for class. • If you are going to be late or absent please notify me or the Adult Education Office. • If you need to leave early please inform me or the Adult Education Office before class. • Skipping class is not permitted and is punishable by the failure of the lab exercise for that class session and absenteeism for that class session. - Please be respectful to your fellow classmates by not talking during tests. - Cell Phones must be switched to vibrate or turned off during class. If you must answer your phone please excuse yourself quietly and leave the classroom.
Методы преподавания:	The successful implementation of this computer science syllabus will require to have computers which are standard main equipments for this subject. Alongside computers other computing tools and applications software have been identified and are indicated in this syllabus where they will be needed. Various ICT resources for the implementation of computer science competency based curriculum to preserve its nature of being most likely practical scientific subject are the following: 1. Computer laboratory: One computer for one student. It is recommended to school to explore the available technologies in market to minimize the cost of laboratory equipment. 2. Projectors: Presentation is the key element of the competency based curriculum where student's works, teaching materials will be mostly displayed using projector for computer science content. 3. Laptops per teacher: Teachers needs to prepare learning and teaching materials, organize content so as to use classroom time effectively. One laptop per teacher is required. 4. Softwares: In most cases skills expected from this competency based curriculum do not rely on any version of operating system or any version of application software, however the latest version of the most softwares at the time of implementation will be used.
Форма контроля знаний	**GRADING** University report student achievement in terms of the following grades: {{TABLE}}
Литература: **Основная** **Дополнительная**	1. Andonie, R. and Dzitac, I. 2010. How to write a good paper in computer science and how will it be measured by ISI Web of Knowledge. International Journal of Computers, Communications & Control (4):432-46. 2. Fortnow, L. 2009. Viewpoint: Time for computer science to grow up. Communications of the ACM 52(8):33.

Grading table:

Grade			Interpretation
A	85-100	'5'	Excellent achievement
B	70-84	'4'	High achievement
C	50-69	'3'	Satisfactory achievement
D	40-49	'2'	Limited achievement

1. Andonie, R. and Dzitac, I. 2010. How to write a good paper in computer science and how will it be measured by ISI Web of Knowledge. International Journal of Computers, Communications & Control (4):432-46.
2. Fortnow, L. 2009. Viewpoint: Time for computer science to grow up. Communications of the ACM 52(8):33.

3. Fransen, J.L. 2012. Parsing citations using Visual Basic for Applications: A step-by-step guide. [Internet]. [Cited November 19, 2012]. Available from: http://purl.umn.edu/127017
4. Goodrum, A.A., McCain, K.W., Lawrence, S., and Lee, G.C. 2001. A citation analysis of computer science literature. Information Processing & Management 37(5):661-75.
5. Hoffmann, K. and Doucette, L. 2012. A review of citation analysis methodologies for collection management. http://crl.acrl.org/content/early/2011/07/21/crl-254.short
6. Jeffryes, J. and Lafferty, M. 2012. Gauging workplace readiness: Assessing the information needs of engineering co-op students. http://www.istl.org/12-spring/refereed2.html
7. Kayongo, J. and Helm, C. 2012. Relevance of library collections for graduate student research: A citation analysis study of doctoral dissertations at Notre Dame. College & Research Libraries 73(1):47-6.
8. Musser, L.R. and Conkling, T.W. 1996. Characteristics of engineering citations. Science & Technology Libraries 15(4):41-9.

СРС	
Примечание.	

Календарно-тематический план распределения часов с указанием недели, темы

№	Дата	Тема	Кол-во час	Литература	Подготовительные вопросы по модулям
1.	4/09	Getting st6arted with Windows	2	*[1],[3],[4]*	Memory, storage devices and media • show understanding of the difference between: primary, secondary and off-line storage and provide examples of each, such as: primary: Read Only Memory (ROM), and Random Access Memory (RAM) secondary: hard disk drive (HDD) and Solid State Drive (SSD); off-line: *Digital* Versatile Disc (DVD), Compact Disc (CD), Blu-ray disc, USB flash memory and removable HDD
2.	6/09	Hardware, input, output storage devices	2	*[1],[2],[4]*	
3.	11/09	System software. Operating system. Language translators Security, privacy and data integrity	2	*[1],[2],[3]*	
4.	13/09	Getting Familiar with MS Word 2010	2	*[1],[3],[4]*	Operating systems • describe the purpose

5.	18/09	The title bar. The ribbon. The ruler. The text area	2	*[1],[2],[5]*	of an operating system (Candidates will be required to understand the purpose and function of an operating system and why it is needed. They will not be required to understand how operating systems work.) • show understanding of the need for interrupts
6.	20/09	The vertical and horizontal scroll bars. The status bar.	2	*[1],[2],[5]*	
7.	25/09	Create sample Data and select Text	2	*[1],[2],[5]*	Creating a new document with templates & Wizard -Creating own document Opening/modifying a saved document - converting files to and from other document formats Using keyboard short-cuts & mouse -Adding symbols & pictures to documents - headers and footers -Finding and replacing text -spell check and Grammar check - Formatting text - paragraph formats - adjusting margins, line space - character space -Changing front type, size
8.	27/09	Microsoft Word 2010 basic feature. Type, backspace, delete , bold, underline, italicize	2	*[1],[2],[3]*	
9.	2/10	More basic features Open a file. Cut and paste.	2	*[1],[2],[3]*	
10.	4/10	Find and Replace. Use Find with the Ribbon	2	*[1],[2],[3]*	
11.	9/10	Change the font size Use spell check	2	*[1],[2],[3]*	
12.	11/10	Formatting Paragraphs and working with Styles	2	*[1],[2],[3]*	
13.	16/10	Add Sample Text. Add Space Before or After Paragraphs. Change Line Spacing Create a First-line Indent	2	*[1],[3],[4]*	
14.	18/10	Adding Bullets and Numbers, Undoing And Redoing, Setting Page Layouts And Printing Documents	2	*[5],[6]*	
15.	23/10	Mail merge/ Formatting tables	2	*[5],[6]*	
16.	25/10	Creating a table. Creating a heading row. Insert an extra column.	2	*[5],[6]*	
17.	30/10	Mail merge. Practice	2	*[5],[6]*	
18.	1/11	Create a page of labels Tables.	2	*[5],[6]*	
19.	6/11	Introduction to Microsoft PowerPoint 2010	2	*[5],[6]*	
20.	8/11	Create a Title Slide	2	*[5],[6]*	

№	Дата	Тема	Кол-во час	Литература	Подготовительные вопросы по модулям
21.	13/11	Animate the Bulleted List	2	*[1],[3],[4]*	-Bullets and numbering
22.	15/10	Create a Chart	2	*[1],[3],[4]*	- Tables -Adding,
23.	20/11	Add Shapes to Your Slide	2	*[1],[3],[4]*	editing, deleting tables -
24.	22/11	Add Additional Text to Your Slide	2	*[1],[3],[4]*	Working within tables
25.	27/11	Import an Image from the World-Wide Web	2	*[1],[2],[5]*	Adding, deleting,
26.	39/11	Adjust Images Using Picture Tools	2	*[1],[2],[4]*	modifying rows and
27.	4/12	Hyperlink to a Web Site Containing a Video Clip	2	*[1],[2],[5]*	columns -merging &
28.	6/12	Create Slide Transitions	2	*[1],[2],[4]*	splitting cells. Mail
29.	11/12	Hyperlink to a Web Site Containing a Video Clip	2	*[1],[3],[4]*	Merge usage.
30.	13/12	Final Presentation	2	*[1],[3],[4]*	
		Total	60		

2 Semester

№	Дата	Тема	Кол-во час	Литература	Подготовительные вопросы по модулям
1.	23/01	Introduction to MS Excel 2010. Ribbons and Tabs	2	*[1],[2],[3]*	Table creating in MS
2.	25/01	Colour themes and styles, pivot tables	2	*[1],[2],[3]*	Excel and
3.	30/01	Improved conditional Formatting	2	*[1],[2],[3]*	implementation various
4.	1/02	Sheet tab, buttons, Workspace and Workbooks	2	*[1],[2],[3]*	Charts Cell reference in MS Excel
5.	6/02	Cell pointer and Auto fill	2	*[1],[3],[4]*	
6.	8/02	Selecting Cells/ Compound selection	2	*[1],[2],[5]*	Sorting of data in MS Excel
7.	13/02	Formulas and Calculations	2	*[1],[2],[5]*	
8.	15/02	The Sum function. Average function	2	*[1],[2],[5]*	Filtering data in MS Excel
9.	20/02	Practice Activities Advanced Data Organization	2	*[1],[2],[3]*	
10.	22/02	Create Subtotals Group and outline data	2	*[1],[2],[3]*	Conditional Formatting, Workbook and
11.	27/02	Apply data validation criteria	2	*[1],[2],[3]*	worksheet
12.	1/03	Remove Duplicate value. Evaluate formula	2	*[1],[2],[3]*	Protection of workbook
13.	6/03	Advanced Data Organization	2	*[1],[2],[3]*	and worksheet

No.					
14.	13/03	Advanced Data Analysis	2	*[1],[3],[4]*	
15.	15/03	Advanced Collaboration	2	*[1],[3],[4]*	
16.	20/03	Introduction to MS Access 2010	2	*[4],[5],[6]*	Tables Based on the Structure of Other Tables
17.	22/03	Define Data Needs	2	*[4],[5],[6]*	
18.	27/03	Define Field Data Types	2	*[4],[5],[6]*	
19.	29/03	Modify Field Properties	2	*[4],[5],[6]*	Modify Queries Open Databases
20.	3/04	Set Validation Rules	2	*[4],[5],[6]*	Macros to Visual Basic
21.	5/04	Define and Modify Primary Keys	2	*[4],[5],[6]*	Modify Forms and Reports
22.	10/04	Define and Modify Multi-Field Primary Keys	2	*[4],[5],[6]*	
23.	12/04	Define Tables in Databases	2	*[4],[5],[6]*	
24.	17/04	Create Tables Based on the Structure of Other Tables	2	*[4],[5],[6]*	
25.	19/04	Create and Modify Queries Open Databases	2	*[1],[3],[4]*	
26.	24/04	Format and Modify a Chart Import and Export Data	2	*[1],[3],[4]*	
27.	26/04	Set Printing Options	2	*[1],[3],[4]*	
28.	1/05	View Code and Convert	2	*[1],[3],[4]*	
29.	3/05	Macros to Visual Basic	2	*[1],[3],[4]*	
30.	10/05	Modify Forms and Reports	2	*[1],[3],[4]*	
		Total	**60**		

График самостоятельной работы студентов

No	Недели Месяцы	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Суммы балов
		октябрь				ноябрь						декабрь						
1	Текущий контроль	15				15						10						40 баллов
2	Срок сдачи СРС*	28.09 - 3.10. 2017г.				2.11 – 07.11.2017г.						14.12 – 19.12.2017г.						
		февраль				март						май						
2	Срок сдачи СРС*	29.01 - 2.02. 2017г.				26.03 – 30.03.2017г.						7.05 – 12.05.2017г.						40 баллов

*СРС – самостоятельная работа студентов.

Примечание: График проведения рубежного и итогового контроля устанавливается Учебным отделом.