MINISTRY FOR HIGHER AND SECONDARY SPECIALIZED EDUCATION OF THE REPUBLIC OF UZBEKISTAN

"APPROVED"
Rector of the Bukhara state University

O. X. Xamidov

" " _____ 2019

"AGREED"
Minister of Higher and Secondary Specialized education of the Republic of Uzbekistan

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I. Majidov
" " _____ 2019

"APPROVED"
President of Holon institute of Technology, Israel

_____

Eduard Yakubov
" " _____ 2019

CURRICULUM

Direction: Computer science (5330200 – Informatika va axborot texnolagiyalari)
Academic level: Bachelor
Form of education: Module-Credit
Duration: 4 years
Module of program: 3+1

I. SCHEDULE OF EDUCATIONAL PROCESS

GRADE	WEEKS (September–August)	Subtotal	Theoretical and practical education	Examination	Introduction	Final Thesis	Holidays	Total
I	C ... H H E E E ... E E E H H H H H H H H	42	36	4	2		10	52
II	... H H E E E ... E E E H H H H H H H H	42	36	6			10	52
III	... H H E E E ... E E E H H H H H H H H	42	36	6			10	52
IV	... E E H H H H H H F F F F F F F F F F F F F F F F F F F H H H H H H H H	35	16	2	1	16	13	48
Total		**161**	**124**	**18**	**3**	**16**	**43**	**204**

The number of weeks of the educational process — From this.

Legend:
- ☐ Theoretical and practical education
- E Examination
- I Internship
- C Introduction
- F Final Thesis
- H Holidays

II. CURRICULUM

Blocks	Title of the course	Credits	Total Hours	Sub total	Lecture	Practice	Laboratory	Seminars	Students workload	Blocks	Title of the course	Credits	Total Hours	Sub total	Lecture	Practice	Laboratory	Seminars	Students workload
	1-semester										**2-semester**								
1	Basic English	8	204	144	0	144			60	1	English for academic purposes	8	204	144	0	144			60
2	Information technologies	6	152	108	36	72			44	2	Information technology	6	152	108	36	72			44
3	Basic mathematics	4	102	72	36	36			30	3	Selected topics in Mathematics	4	102	72	36	36			30
4	Introduction to physics	4	102	72	36	36			30	4	Introduction to Biology	2	51	36	18	18			15
5	General Studies	6	152	108	36	72			44	5	Introduction to Chemistry	2	51	36	18	18			15
6	Elective course	2	51	36	18	18			15	6	General Studies	6	152	108	36	72			44
										7	Elective Course	2	76	54	18	36			22
	Total (semester):	30	713	540	162	378			223		**Total (semester):**	30	788	558	162	396			230
											Total (year):	60	1501	1098	324	674			453
	3-semester										**4-semester**								
1	Calculus 1	8	204	144	90	54			60	1	Calculus 2	6	204	108	72	36			96
2	Discrete Mathematics for Computer Science	6	152	108	72	36			44	2	Probability and Statistics	3	102	72	54	18			30
3	Linear Algebra	6	152	108	72	36			44	3	Data Structures	4	127	90	54	36			37
4	Introduction to computer science	6	152	108	72	36			44	4	Computer Structure and Switching theory	4	127	90	54	36			37
5	Elective Course	2	127	90	54	36			37	5	Advanced Programming Workshop	3	102	72	36	36			30
6	Elective Course	2	127	90	54	36			37	6	General Studies	2	50	36				36	14
										7	Elective Course	4	127	60	30	30			67
										8	Elective Course	4	127	60	30	30			67
	Total (semester):	30	787	558	360	198			229		**Total (semester):**	30	866	588	330	222		36	225
											Total (year):	60	1574	1116	684	396		36	454
	5-semester										**6-semester**								
1	Graph theory	3.5	102	72	54	18			30	1	Operating System	3.5	102	72	54	18			30
2	Computer Communication Networks	3.5	102	72	54	18			30	2	Automats and Formal Languages	4	127	90	54	36			37

Left half (5–6 semester continuation):

№	Subject	Cr	Tot	Aud	Lec	Pr		Ind
	Computer Organization and Assembly Language	2.5	76	54	36	18		22
	Data Base System	4	127	90	54	36		37
3	Object Oriented Programming	5	152	108	72	36		44
3	General Studies	2	50	36	36			14
3	Elective Course	4	127	90	54	36		37
	Total (semester):	**24.5**	**736**	**522**	**360**	**162**		**214**

№	Subject	Cr	Tot	Aud	Lec	Pr		Ind
2	Logic for Computer Sciences	4	127	90	54	36		37
2	Design and Analysis of Algorithms	4	127	90	54	36		37
2	Elective Course	3	102	72	36	36		30
4	General Studies	2	50	36	36			14
4	Elective Course	3	102	72	36	36		30
	Total (semester):	**23.5**	**737**	**522**	**324**	**198**		**215**
	Total (year):	**48**	**1473**	**1044**	**684**	**360**		**429**

7-semester

№	Subject	Cr	Tot	Aud	Lec	Pr		Ind
1	Computability and Complexity of Algorithms	4	127	90	54	36		37
1	Mathematical Tools for Computer Science	5	152	108	72	36		44
2	Logic programming	3	102	72	36	36		30
3	Elective Course	3.5	102	72	54	18		30
4	Elective Course	2	50	36	36			14
	Total (semester):	**17.5**	**533**	**378**	**252**	**126**		**155**

8-semester

№	Subject	Cr	Tot	Aud	Lec	Pr		Ind
4	Compilation Theory	3.5	102	72	54	18		30
4	4 Elective Courses	12	406	288	144	144		118
4	General Studies	2	50	36	36			14
	Total (semester):	**17.5**	**558**	**396**	**234**	**162**		**132**
	Total (year):	**35**	**1277**	**765**	**442**	**323**		**512**
	Total (4 years):	**240**	**5900**	**4041**	**2134**	**1871**	**36**	**3098**

Definitions:

1. This program is based on the Resolution of the President of the Republic of Uzbekistan PQ-2909 in 20th of April, 2017 "On Measures for Further Development of Higher Education System" in 27th of July, 2017, PQ-3151 "Measures to Extend the Participation of the Spheres and Industries in Higher Education" and PQ-3775 in 5th of June, 2018 "Enhance the quality of education in higher education institutions and take additional measures to ensure their active participation in the country`s comprehensive reforms".

2. Monitoring and evaluation of students' knowledge is carried out in accordance with the module-credit system.

3. The requirements of the stakeholders are taken into consideration when developing elective course.

4. This curriculum is implemented from 2018-2019 academic years.

Head of the Main Department control over the introduction of new programs and educational literature   S.Niyazbekov

Head of Department spiritual and moral education   O.Bazarov

Director of Higher Education Development Research and Advanced Technology Center   Z.Xakimov

Approved by the Coordinating Council of the activities of educational associations in the areas of higher and secondary special education under the Ministry of Higher and Secondary Special Education.

Protocol No.__from "___" _____ 2019__

Bukhara state University

Vice Rector for Academic Affairs
_____ M.I. Daminov

Head of educational-methodical department
_____ M.Ya. Ergashev

Holon institute of Technology, Israel

Vice-President for Academic Affairs
_____ Prof. D.Shoikhet

State orderer for specialist:

Center for the provision of state services of Bukhara region

_____ F. Sharipov