O‘ZBEKISTON RESPUBLIKASI
OLIY TA’LIM, FAN VA INNOVATSIYALAR VAZIRLIGI

SAMARQAND DAVLAT ARXITEKTURA – QURILISH UNIVERSITETI

“TASDIQLAYMAN”
O‘quv ishlari bo‘yicha
prorektor_____M.T.Shodmonqulov
Ro‘yxatga olindi №_15/A_
2025-yil “19” avgust

“TASDIQLAYMAN”
Rektor_____
Ch.J.Turkyilmaz
2025-yil “20” avgust

INFORMATIKA FANLARIGA KIRISH

FAN DASTURI

Bilim sohasi:	400 000 – Biznes, boshqaruv va huquq
Ta’lim sohasi:	410 000 – Biznes va boshqaruv
Ta’lim yo‘nalishi:	60410900 – Biznesni boshqarish
	60410100 – Iqtisodiyot

Samarqand – 2025

Kurs ma'lumotlari
Course Information Form

Modul kodi **Code** KRM 1030	**O'quv yili** 2025-2026	**Semestr** 4	**ECTS – Kreditlar** 4-semestr -4			
Modul turi Majburiy	**Ta'lim tili** O'zbek/rus		**Auditoriya soatlari**			Mustaqil ta'lim (soat/hafta) Independent Education (hour/week)
Fan nomi Title	**Jami yuklama**		Ma'ruza (soat/hafta) Lecture (hour/week)	Amaliy (soat/hafta) Practical (hour/week)	Laboratoriya (soat/hafta) Laboratory (hour/week)	
Informatika fanlariga kirish	4-semestr - 120		4-semestr -2	4-semestr - 2		4-semestr - 4

Dastlabki shart Prerequisite	**Yo'q** None

Semestr Semestr	**Kuzgi** Autmn

Kurs tili Course language	**O'zbek, Ingliz, Rus** Uzbek, English, Russian
O'quv kursi Level of Course	**Birinchi kurs** First Cycle
Ta'lim yo'nalishlari Course type	60410900 - Biznesni boshqarish 60410100 – Iqtisodiyot
Kurs toifasi Course Category	Asosiy Core Courses
Dars shakli Mode of Delivery	An'anaviy (Yuzma – yuz muloqot) Face – to - face

Ma'sul kafedra Owner academic unit	Axborot texnologiyalari Information technology
Kursga ma'sul Cours Coordinator	K.M. Shaimov
O'qituvchilar Instructor(s)	Q. G'aybulov, J. Haydarov
Yordamchilar Asistant(s)	K. Islamov

Fanni o'qitishdan maqsad Course objectives	Informatika va axborot texnologiyalari haqidagi bilimlarni mustahkamlash, analitik fikrlashni rivojlantirish Consolidation of general information texnology, development of analytical thinking.
Fanning mazmuni Course content	Kompyuterni tashkil etuvchilari, Algoritmlar, Python dasturlash tilida vektor va matritsa operatsiyalari, Kiritish va chiqarish operatorlari, Python dasturlash tilida grafik fayllar bilan ishlash, Matematik funksiyalar grafiklarini chizish. Computer Organization; Algorithms; Programming Languages and Data Structures; Fundamental of Programming Language, Expressions, Numbers, Operators, Functions; Vector and Matrix Operations; Basic Data Analysis, Conditional Statements, Loops, Input-Output Operations, Graphics, Mixed Examples.
Tavsiya qilingan yoki talab qilinadigan adabiyotlar ro'yxati Recommended Or Required Reading	**Asosiy adabiyotlar:** 1. Discovering Computers 2016. Tools, Apps, Devices, and the Impact of Texnology. 691 pg. 2. Krishna Rungta. Learn Python in 1 Day: Complete Python Guide

	with Examples. India 2016. -182 p. 3. M.T. Shodmonqulov Informatika faniga kirish, O'quv qo'llanma (amaliy mashg'ulotlarni bajarish uchun), "Ilm Ziyo Zakovat" 2023 yil. 4. M.T. Shodmonqulov Kompyuter ilmiga kirish, Darslik, "Ilm Ziyo Zakovat" 2024 yil. 5. U.A. Nazarov, Informatika faniga kirish, darslik – 2023 6. Axadov A., Nazarov F. Python tilida dasturlash asoslari (1-qism), SamDU-2020. **Qo'shimcha adabiyotlar:** 1. Eshtemirov S. Nazarov F. Algoritmlash va dasturlash asoslari. O'quv qo'llanma. Samarqand 2019. -208 b. 2. Hetland, M. L., Norton, P, Wilson, H. B. Introduction to Python Programming, Lecture Notes used in Semester 1 of the module Introduction to computational Physics (U24200, years 2019/2020, 2020/2021) 3. Michael J. Ware, Introduction to Python Department of Physics and Astronomy Brigham Young University, 2019 **Axborot manbalari:** 1. www.lex.uz – O'zbekiston Respublikasi Qonun hujjatlari ma'lumotlari milliy bazasi; 2. http://www.bologna.yildiz.edu.tr/index.php?r=program/bachelor 3. https://dasturchi.uz/programming-tutorials/piton-darsliklar 4. https://pythonworld.ru/samouchitel-python
Tavsiya etilgan qo'shimcha dastur komponentlari Recommended Optional Program Components	Yo'q\ (bor bo'lsa yoziladi) None

Kursni o'rganish natijalari
Course learning outcomes

1	Ushbu kursni muvaffaqiyatli tamomlagan talabalar fan dasturi bo'yicha chuqur amaliy va nazariy bilimlarga ega bo'ladilar; Students who successfully complete this course; they will have in-depth practical and theoretical knowledge of the science program;
2	Dasturlash tilida dasturini kompilyatsiya qila oladilar; Can compile a program in a programming language;
3	Dasturlash tilida funksiyalarni yoza oladilar; They can write functions in a programming language;
4	Dasturlash tilida operatorlar shartli operatorlar (if, elif, goto,…) va sikllar (for, do while) bilan ishlay oladilar; In a programming language, operators can work with conditional operators (if, elif, goto,…) and loops (for, do while)
5	Dasturlash tilida massivlar va matritsalardan foydalana olish qobiliyatiga ega bo'ladilar; They will have the ability to use arrays and matrices in a programming language;
6	Talabalar dasturlash tilida grafikadan foydalana oladilar; Students can use graphics in a programming language;
7	O'z fikr-mulohaza va xulosalarini asosli tarzda aniq bayon eta olish malakalariga ega bo'ladilar. They will have the skills to express their opinions and conclusions clearly.

Haftalik mavzular va tegishli tayyorgarlik ishlari
Weekly Subjects and Related Preparation Studies

Hafta Week	**Mavzular** Themes	**Resurslar** Related preparation
1.	Kirish. Zamonaviy kompyuterlarning tuzilishi. Protsessor (SPU)	1- adabiyot (I-II bob)

	tuzilishi va vazifalari. https://acad.iitr.ac.in/Varsity/Academic_Programmes/UG/CS/syllabi.pdf	
2.	Algoritimlar haqida umumiy tushunchalar. Algoritmlarning tuzlishi va turlari. https://acad.iitr.ac.in/Varsity/Academic_Programmes/UG/CS/syllabi.pdf	1,4,7-adabiyotlar
3.	Dasturlash tillari strukturalari. Pyton dasturlash tili va uning imkoniyatlari. https://acad.iitr.ac.in/Varsity/Academic_Programmes/UG/CS/syllabi.pdf	1,6,7-adabiyotlar
4.	Python dasturlash tilida ineraktiv rejim, kiritish va chiqarish operatorlari. O'zgaruvchi va o'zgarmaslar.	1, 5, 7, 9 - adabiyotlar
5.	Python dasturlash tilida arifmetik, mantiqiy va munosabat amallari.	7-adabiyot (II bob), 3-adabiyot (I bob)
6.	Python dasturlash tilida arifmetik ifodalar va standart funksiyalar.	1, 7, 9 – adabiyotlar
7.	Python dasturlash tilida chiziqli tarkibli jarayonlarni dasturlash.	7, 9 – adabiyotlar
8.	Python dasturlash tilida tarmoqlanuvchi tarkibli jarayonlarni dasturlash.	7, 9 – adabiyotlar
9.	Python dasturlash tilida takrorlanuvchi tarkibli jarayonlar va parametr bo'yicha dasturlash. For(sikl) operatori. Ichma-ich joylashgan sikllarni tashkil qilish.	1,7,8,9 – adabiyotlar
10.	Sikl qadamlarini tashlab o'tish va sikllarni muddatidan oldin tugatish. Break va Continue operatori va ularning umumiy ko'rinishi.	3,7,8,9 – adabiyotlar
11.	Python dasturlash tilida shartli takrorlanuvchi jarayonlarni dasturlash. While operatori va uning umumiy ko'rinishi.	5,7,8,9 – adabiyotlar
12.	Python dasturlash tilida massivlar ustida amallar. Bir va ikki o'lchovli massivlar. https://acad.iitr.ac.in/Varsity/Academic_Programmes/UG/CS/syllabi.pdf	2, 7,8,9 - adabiyotlar
13.	Python dasturlash tilida murakkab turlar ro'yxat, kortej, lug'at, to'plam va massivlar.	1,7,8 - adabiyotlar
14.	Python dasturlash tilida funksiyalar va protseduralar tushunchalari. Qism dasturlar, Funksiya tanasini faollashtirish, Global va lokal o'zgaruvchilar, Rekursiv funksiyalar tushunchalari.	7,8,11 - adabiyotlar
15.	Python dasturlash tilida grafik fayllar bilan ishlash. Grafik muhitini faollashtirish. Matematik funksiyalar grafiklarini chizish.	7,8,12 – adabiyotlar

Baholash jarayoni Evaluation System		
Mashg'ulot turi Activities	**Soni** Number	**Baholash** Percentage of Grade
Darsga qatnashish Attendance / particition		
Laboratoriya ishi Laboratory		
Amaliy ish (qo'shimcha vazifa) Application		
Kurs ishi Field work		
Maxsus kurs amalyoti (ish joyida) Special course internship (work placement)		
Testlar		

Quizzes / studio crtics		
Uyga vazifani baholash Homework assignments		
Ijodiy ish (taqdimot) Presentations / jury		
Loyiha ishi Project		
Seminar Seminar / workshop		
Oraliq nazorat Mid -Terms	2	60
Yakuniy nazorat Final	1	40
O'zlashtirish ko'rsatgichi Percentage of in – term studies		**60**
Yakuniy imtihon bahosi Percentage of final examination		**40**
Jami Total		**100**

ECTS taqsimoti
ECTS workload table

Topshiriqlar Activities	**Soni** Number	**Davomiyligi (soat)** Duration (hour)	**Umumiy yuklama** Total workload
Mashg'ulot soati Course hours	30	2	60
Laboratoriya ishi Laboratory			
Amaliy ish (qo'shimcha vazifa) application			
Kurs ishi Field work			
Mustaqil ta'lim (maslahat) Study hours out of class	5	2	10
Maxsus kurs amalyoti (ish joyida) Special course internship (work placement)			
Uyga vazifani baholash Homework assignments	5	2	10
Testlar / Viktorina Quizzes / studio critics			
Loyiha ishi Project			
Ijodiy ish (taqdimot) Presentations / seminar	5	1	5
Oraliq nazorat Mid – terms (Examination +Examination prep. Duration)	2	10	20
Yakuniy nazorat (nazorat va nazoratga tayyorlanish soati) Final (examination +examination prep.Duration	1	15	15
		Jami yuklama Total workload	120
		Jami yuklama / 30 (soat) Total workload / 30(h)	120/30=4
		Kredit ECTS credit	4

Qo'shimcha eslatmalar Extra Notes	Yo'q\ (bor bolsa yoziladi) None

Oliy ta'lim, fan va innovatsiyalar vazirligi tomonidan 2025-yil uchun tasdiqlangan xalqaro e'tirof etilgan tashkilotlarning reytingida top 300 talikka kiruvchi Indian Institute of Science (The 261) va (QS-210) ning "Design and Analysis of Algorithms" fan dasturi tahlil qilinib ushbu asosda fan dastur ishlab chiqildi. "Informatika fanlariga kirish" fanining dasturi tayyorlanib 4 ta mavzusi yangilandi.
[https://acad.iitr.ac.in/Varsity/Academic_Programmes/UG/CS/syllabi.pdf]

Fan dasturi Mirzo Ulug'bek nomidagi Samarqand davlat arxitektura-qurilish universitet kengashining 2025 yil ____ - avgustdagi ____ - sonli bayonnomasi bilan ma'qullangan.

Kafedra mudiri: K.M. Shaimov

Tuzuvchilar: K.M. Shaimov

J.K. Haydarov

Q.M. G'aybulov