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

SAMARQAND DAVLAT ARXITEKTURA – QURILISH UNIVERSITETI

“KELISHILGAN”
o‘quv ishlari bo‘yicha
prorektor _____
M.T.Shodmonqulov
Ro‘yxatga olindi: №28/a
«30» avgust 2024 yil

“TASDIQLAYMAN”
Rektor _____
Ch.J. Turkyilmaz
«___» avgust 2024 yil

BIZNES MATEMATIKASI 2

FAN DASTURI

Bilim sohasi: 400000 – Biznes, boshqaruv va huquq

Ta’lim sohasi: 410000 – Biznes va boshqaruv

Ta’lim yo‘nalishi: 60410900 - Biznesni boshqarish

Samarqand – 2024

Kurs ma'lumotlari
Course Information Form

Modul kodi **Code** **BIZ1050**	**O'quv yili** 2024-2025	**Semestr** 2	**ECTS – Kreditlar** 2-semestr -2			
Modul turi Majburiy	**Ta'lim tili** O'zbek		**Auditoriya soatlari**			Mustaqil ta'lim (soat/hafta) Independent Education (hour/week)
Fan nomi Title	**Jami yuklama**		**Ma'ruza (soat/hafta)** Lecture (hour/week)	**Amaliyot (soat/hafta)** Practical (hour/week)	**Laboratoriya (soat/hafta)** Laboratory (hour/week)	
Biznes matematika 2 Business mathematics 1	2-semestr -60		2-semestr -2			2-semestr -2

Dastlabki shart Prerequisite	**Yo'q** None

Semestr Semestr	**Bahorgi** Spring

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
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	Ijtimoiy va tabiiy fanlar kafedrasi Department of social and natural sciences
Kursga ma'sul Cours Coordinator	Xudayorov Ulug'bek
O'qituvchilar Instructor(s)	-
Yordamchilar Asistant(s)	-

Fanni o'qitishdan maqsad Course objectives	Analitik fikrlash, modellashtirish, hayotiy muammolarni hal qilish va sharhlash qobiliyatini shu tarzda egallash. Gaining the ability of analytical thinking, modeling, solving and interpreting real life problems in this way.
Fanning mazmuni Course content	Aniqmas integral, aniq integral, integralning tatbiqlari, differensial tenglamalar, chekli ayirmali tenglamalar, differensial va ayirmali tenglamalarning tatbiqlari, ko'p o'zgaruvchili funksiyalar, matritsalar va determinantlar, chiziqli tenglamalar sistemalari, chiziqli dasturlash, amaliyotga tatbiqlari. Indefinite integral, Definite integral, Business applications of integral. Differential equations, Difference equations, Differential and difference equations business applications, Multivariable functions, Matrices and determinants, Linear equation systems, Linear Programming, Business applications.

Tavsiya qilingan yoki talab qilinadigan adabiyotlar ro'yxati Recommended Or Required Reading	1. Basic Mathematical Analysis (for Business, Economics, Life Sciences and Social Sciences), 11th Edition, Authors: Ernest F. Haeussler, Jr., Richard S. Paul, Richard J. Wood, Translators: S. Demir, Ö. Uzun, AO Balce, A. Çağlar, Akademi Publishing, 2013. 2. For General Mathematics, Business, Economics, Life and Social Sciences / Calculus for Business, Economics, Life Sciences And Social Sciences, Barnett, Raymond A., Michael R. Ziegler, and Karl E. Byleen., Translated by Arif Sabuncuoğlu, 2019. 3. SH. SHaraxmetov, O.T. Kurbanov.,Iqtisodchilar uchun matematika., O'z. faylasuflari milliy jamiyati nashriyoti., T-2017 4. Xurramov Sh.R. Oliy matematika. T.: «Tafakkur», 1-jild. 2018. 5. Xurramov Sh.R. Oliy matematika. Misol va masalalar. Nazorat topshiriqlari. 1- qism, 2- qism. T: Fan va texnologiyalar, 2015.
Tavsiya etilgan qo'shimcha dastur komponentlari Recommended Optional Program Components	Yo'q\ (bor bolsa yoziladi) None

Kursni o'rganish natijalari
Course learning outcomes

1.	Asosiy matematik bilimlarni olish Gaining basic math knowledge
2.	Analitik fikrlash qobiliyatini egallash Gaining analytical thinking ability
3.	Abstrakt fikrlash qobiliyatini egallash Gaining the ability to think abstractly
4.	Haqiqiy hayot muammolarini modellashtirish, yechish va sharhlash qobiliyatiga ega bo'lish Gaining the ability to model, solve and interpret real life problems

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

Hafta Week	**Mavzular** Themes	**Resurslar** Related preparation
1.	Boshlang'ich funksiya va aniqmas integrallar.	1-4-darsliklar
2.	Integrallar jadvali. Integrallash usullari.	1-4-darsliklar
3.	Ratsional kasrlarni integrallash.	1-4-darsliklar
4.	Aniq integral. Integral hisoblashning Nyuton–Leybnis formulasi.	1-4-darsliklar
5.	Aniq integrallarni bo'laklab integrallash.	1-4-darsliklar
6.	Aniq integralning tatbiqlari. Egri chiziqli trapetsiyaning yuzini topish.	1-4-darsliklar
7.	Xosmas integrallar.	1-4-darsliklar
8.	Ko'p o'zgaruvchili funksiyalarning xususiy hosilasi.	1-4-darsliklar
9.	Yuqori tartibli xususiy hosilalar.	1-4-darsliklar
10.	Ikki o'zgaruvchili murakkab funksiyalarining xususiy hosilasi .	1-4-darsliklar
11.	Ikki o'zgaruvchili funksiyalarining ekstremumi.	1-4-darsliklar
12.	Oddiy differensial tenglamalar	1-4-darsliklar
13.	Matritsalar. Matritsalarni qo'shish va songa ko'paytirish.	1-4-darsliklar
14.	Matritsalarni ko'paytirish. Matritsalar ustida chiziqli almashtirishlar	1-4-darsliklar
15.	Tenglamalar sistemalarini matritsalar yordamida yechish	1-4-darsliklar

Baholash jarayoni
Evaluation System

Mashg'ulot turi Activities	**Soni** Number	**Baholash** Percentage of Grade
Darsga qatnashish Attendance / particition	15	20
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	30
Yakuniy nazorat / Final	1	50
O'zlashtirish ko'rsatgichi Percentage of in – term studies		50
Yakuniy imtihon bahosi Percentage of final examination		50
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	15	2	30
Laboratoriya ishi / Laboratory			
Amaliy ish (qo'shimcha vazifa) application			
Kurs ishi / Field work			
Mustaqil ta'lim/ Study hours out of class	15	2	30
Maxsus kurs amalyoti (ish joyida) Special course internship (work placement)			
Uyga vazifani baholash Homework assignments			
Testlar / Viktorina Quizzes / studio critics			
Loyiha ishi / Project			
Ijodiy ish (taqdimot) Presentations / seminar			
Oraliq nazorat Mid – terms (Examination +Examination prep. Duration)			
Yakuniy nazorat (nazorat va nazoratga tayyorlanish soati) Final (examination +examination prep. Duration)			
Jami yuklama Total workload			60
Jami yuklama / 30 (soat) Total workload / 30(h)			60/30=2
Kredit ECTS credit			2

Fan dasturi Mirozo Ulug'bek nomidagi Samarqand davlat Arxitektura-qurilish universitet kengashining 2024 yil ____-avgustdagi ___-sonli bayonnomasi bilan ma'qullangan.

Kafedra mudiri: **A. T. Quldoshev**

Tuzuvchilar: **U. O. Xudayorov**