

O‘ZBEKISTON RESPUBLIKASI
OLIY TA‘LIM, FAN VA INNOVATSIYALAR VAZIRLIGI
SAMARQAND DAVLAT ARHITEKTURA – QURILISH UNIVERSITETI

“KELISHILGAN”
O‘quv ishlari bo‘yicha prorektor
M.T. Shodmonqulov

Ro‘yxatga olindi: № 31/a
«30» avgust 2024 yil



“TASDIQLAYMAN”
Rektor: Ch. J. Turkyilmaz
«30» avgust 2024 yil

MOLIYA VA BOSHQARUV MATEMATIKA
FAN DASTURI

Bilim sohasi: 700 000 – Muhandislik, ishlov berish va qurilish sohalari
Ta‘lim sohasi: 730 000 – Arxitektura va qurilish
Ta‘lim yo‘nalishi: 60731300 – Ko‘chmas mulkni boshqarish

Samarqand – 2024

Kurs ma'lumotlari

Course Information Form

Modul kodi Code MAT4080	O'quv yili 2024-2025	Semestr 3	ECTS – Kreditlar 3-semestr -6		
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)	
Moliya va boshqaruv matematika	3-semestr -180	3-semestr -3			3-semestr -9

Dastlabki shart Prerequisite	Yo'q None
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Semestr Semestr	Kuzgi Fall
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Kurs tili Course language	O'zbek, Ingliz, Rus Uzbek, English, Russian
O'quv kursi Level of Course	Ikkinchi kurs Second Cycle
Ta'lim yo'nalishlari Course type	60731300 – Ko'chmas mulkni 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 kafedrası Department of social and natural sciences
Kursga ma'sul Cours Coordinator	Shodiyev Kamolidin Shodiev Kamolidin
O'qituvchilar Instructor(s)	Shodiyev Kamolidin
Yordamchilar Asistant(s)	Xudayorov Ulug'bek

Fanni o'qitishdan maqsad Course objectives	Moliyaviy texnika va tamoyillarni joriy etish, ularni turli usullarda qo'llash va muammolar orqali o'rgatish. To introduce financial techniques and principles, to teach their use and application through various problems.
Fanning mazmuni Course content	Foizlarni o'lchash: jamg'arma va summa funksiyalari, samarali foiz stavkasi, oddiy va murakkab foizlar, joriy qiymat, samarali chegirma stavkasi, nominal foiz va diskont stavkalari, bir zumda oddiy va murakkab foiz stavkasi, o'zgaruvchan foiz, foiz bilan bog'liq ilovalar: asosiy muammo Ikki pul oqimining joriy qiymatining tengligi, noma'lum to'lov vaqti, noma'lum foiz stavkasi, Vaqt davrlarini aniqlash, Noma'lum foiz stavkasi, Vaqt Davrlarni aniqlash, namunaviy arizalar, asosiy annuitetlar: davr boshi annuitetlar, davr oxiri annuitetlari, har qanday sanadagi annuitetning qiymati, cheksiz to'langan annuitetlar soni, noma'lum davrlar soni, noma'lum foiz stavkasi, O'zgaruvchan foizli annuitetlar, asosiy annuitetlar bilan bog'liq ilovalar, Umumiy

	<p>Annuitetlar: konvertatsiya davridan boshqa chastotada amalga oshirilgan to'lovlar, o'zgaruvchan annuitetlar, arifmetik qatorlar ko'rinishidagi har xil to'lovli annuitetlar, geometrik qatorlar to'lanadigan annuitetlar, amortizatsiya to'lovlari va kreditni qaytarish fondi balansni aniqlash, Amortizatsiya to'lovlari, To'lanmagan qarz miqdori.</p> <p>Measurement of Interest: Savings and Amount Functions, Effective Interest Rate, Simple and Compound Interest, Present Value, Effective Discount Rate, Nominal Interest and Discount Rates, Instant Simple and Compound Interest Rate, Variable Interest, Applications Related to Interest: Fundamental problem, Two cash Equality of the present value of the flow of money, Unknown payment time, Unknown interest rate, Determination of time periods, Unknown interest rate, Determination of time periods, Sample Applications, Key Annuities: Annuities at the beginning of the period, Annuities at the end of the period, Value of an annuity at any date, Infinite number of payments Annuities, Unknown period number, Unknown interest rate, Variable interest rate annuities, Applications related to basic annuities, General Annuities: Payments made at different frequency from the interest conversion period, Variable annuities, Annuities with varying payments in the form of arithmetic series, Annuities with varying payments in the form of geometric series, Depreciation payments and Determination of the balance of the debt payment fund, Depreciation payments, Amount of outstanding debt.</p>
<p>Tavsiya qilingan yoki talab qilinadigan adabiyotlar ro'yxati Recommended Or Required Reading</p>	<p>Asosiy adabiyotlar:</p> <ol style="list-style-type: none"> 1. Kellison, SG "Qiziqish nazariyasi", MakGrou-Xill. (2009). 2. Meral Sucu, Funda Kul, "Moliya matematikasi", Nobel Akademik nashriyoti, (2014). <p>Qo'shimcha adabiyotlar:</p> <ol style="list-style-type: none"> 1. Shodiev Tursun. Ekonomotrika. -T.: Sharq, 1999. 2. Shodiev T. va boshqalar. Iqtisodiy-matematik usullar va modellar. 3. Safayeva Q. Moliya matematikasi. Darslik. T.: «IQTISOD-MOLIYA», 2012, 264 bet. 4. Safayeva Q. Ekonometrika. 1-qism. Moliya matematikasi. O'quv qo'llanma. - T.: TMI, 2000. <p>Axborot manbalari:</p> <ol style="list-style-type: none"> 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 5. https://library.ziyonet.uz/ru
<p>Tavsiya etilgan qo'shimcha dastur komponentlari Recommended Optional Program Components</p>	<p>Yo'q\ (bor bolsa yoziladi)</p> <p>None</p>

<p>Kursni o'rganish natijalari Course learning outcomes</p>	
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.	Foizlarni o'lash: jamg'arma va summa funksiyalari, oddiy foizlar.	1-2-darsliklar
2.	Foizlarni o'lash: samarali foiz stavkasi, murakkab foizlar.	1-2-darsliklar
3.	To'lovlar oqimi. Moliyaviy rentalar.	1-2-darsliklar
4.	O'zgaruvchan va uzluksiz rentalar. Rentalarni almashtirish.	1-2-darsliklar
5.	Investitsiya samaradorligini moliyaviy tahlil qilishda matematik usullar.	1-2-darsliklar
6.	Moliya operatsiyalarida inflyatsiyani hisoblash.	1-2-darsliklar
7.	Inflyatsiyani nazarga oluvchi oddiy va murakkab foiz stavkalarini hisoblash	1-2-darsliklar
8.	Ehtimolli moliyaviy operatsiyalarda risklarni baholash	1-2-darsliklar
9.	Aktuar hisoblar	1-2-darsliklar
10.	Asosiy annuitetlar: davr oxiri, boshlang'ich annuitetlar.	1-2-darsliklar
11.	Asosiy annuitetlar: har qanday sanadagi annuitetning qiymati, cheksiz miqdordagi to'langan davrlar bilan annuitetlar, noma'lum davrlar soni.	1-2-darsliklar
12.	Fundamental annuitetlar: noma'lum foiz stavkasi, o'zgaruvchan foizli annuitetlar, fundamental annuitetlar bilan bog'liq ilovalar.	1-2-darsliklar
13.	Umumiy annuitetlar: foizlarni konvertatsiya qilish davridan boshlab turli chastotalarda amalga oshirilgan to'lovlar, o'zgaruvchan annuitetlar	1-2-darsliklar
14.	Amortizatsiya to'lovlari va qarzlarni to'lash fondi qoldig'ini aniqlash.	1-2-darsliklar
15.	Amortizatsiya to'lovlari, To'lanmagan qarz miqdori.	1-2-darsliklar

Baholash jarayoni Evaluation System		
Mashg'ulot turi Activities	Soni Number	Baholash Percentage of Grade
Darsga qatnashish Attendance / participation	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 critics		
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		100

Total	
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ECTS taqsimoti ECTS workload table			
Topshiriqlar Activities	Soni Number	Davomiyligi (soat) Duration (hour)	Umumiy yuklama Total workload
Mashg'ulot soati Course hours	15	3	45
Laboratoriya ishi Laboratory			
Amaliy ish (qo'shimcha vazifa) application			
Kurs ishi Field work			
Mustaqil ta'lim Study hours out of class	10	13 (+5soat)	135
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			180
Jami yuklama / 30 (soat) Total workload / 30(h)			180/30=6
Kredit ECTS credit			6

Qo'shimcha eslatmalar Extra Notes	Yo'q\ (bor bolsa yoziladi) None
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Fan dasturi Mirozo Ulug'bek nomidagi Samarqand davlat arxitektura-qurilish universiteti kengashning 2024 yil ___-avgustdagi ___-sonli bayonnomasi bilan ma'qullangan.

Kafedra mudiri:



A. T. Quldoshev

Tuzuvchilar:



K. Sh. Shodiyev