"TASDIQLAYMAN"
Namangan davlat universiteti
rektori, professor
_______ S.T.Turg'unov
2022 yil "30" 08

O'ZBEKISTON RESPUBLIKASI LIY VA O'RTA MAXSUS TA'LIM VAZIRLIGI
NAMANGAN DAVLAT UNIVERSITETI

# ISHCHI O'QUV REJA

Ta'lim yo'nalishi: *60540100 – Matematika*

Akademik daraja – BAKALAVR
O'qish shakli – kredit tizimi
Ta'lim shakli – kechki
O'qish muddati – 4,5 yil
*2-kurs, 2022/2023 o'quv yili*

## I. O'quv jarayoni jadvali

| kurs | Sentabr | | | | | Oktabr | | | | Noyabr | | | | | Dekabr | | | | Yanvar | | | | | Fevral | | | | Mart | | | | | Aprel | | | | May | | | | Iyun | | | | Iyul | | | | Avgust | | | | O'quv jarayoni haftalari: jami | Nazariy va amaliy ta'lim | Attestatsiyalar | Kredit ta'lim tizimiga kirish | Malakaviy amaliyot | Yakuniy davlat attestatsiyasi | Ta'tillar | Hammasi |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | | | | | | | | |
| I | K | K | | | | | | | | | | | | | | | | T | T | A | A | A | | | | | | | | | | | | | | | A | A | A | x | x | x | x | x | x | x | x | x | x | x | x | x | 38 | 30 | 6 | 2 | | | 2 | 40 |
| II | K | K | | | | | | | | | | | | | | | | T | T | A | A | A | | | | | | | | | | | | | | | A | A | A | M | M | x | x | x | x | x | x | x | x | x | x | x | 40 | 30 | 6 | 2 | 2 | | 2 | 42 |
| III | K | K | | | | | | | | | | | | | | | | T | T | A | A | A | | | | | | | | | | | | | | | A | A | A | M | M | x | x | x | x | x | x | x | x | x | x | x | 40 | 30 | 6 | 2 | 2 | | 2 | 42 |
| IV | K | K | | | | | | | | | | | | | | | | T | T | A | A | A | | | | | | | | | | | | | | | A | A | A | x | x | x | x | x | x | x | x | x | x | x | x | x | 38 | 30 | 6 | 2 | | | 2 | 40 |
| V | P | P | P | P | P | P | P | P | P | M | M | M | M | M | M | D | D | T | T | D | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | 18 | | | | 15 | 3 | 2 | 20 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Jami | 174 | 120 | 24 | 8 | 19 | 3 | 10 | 184 |

| (bo'sh) Nazariy va amaliy ta'lim | A – Attestatsiyalar | (bo'sh) Kredit ta'lim tizimiga kirish | M – Malakaviy amaliyotlar | D – Yakuniy davlat attestatsiyasi | T – Ta'tillar |
|---|---|---|---|---|---|

## II. O'quv rejasi

| t/r | fanning malakaviy kodi | O'quv fanlari, bloklar va faoliyat turlarining nomlari | Talabaning o'quv yuklamasi, soatlarda | | | | | | | | | Soatlarning kurs, semestr va haftalar bo'yicha taqsimoti | | | | | | | | | Kreditlarning kurs, semestr va haftalar bo'yicha taqsimoti | | | | | | | | | Jami kreditlar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | umumiy yuklama hajmi | | Auditoriya mashg'ulotlari | | | | | | mustaqil ta'lim | 1-kurs | | 2-kurs | | 3-kurs | | 4-kurs | | 5-kurs | 1-kurs | | 2-kurs | | 3-kurs | | 4-kurs | | 5-kurs | |
| | | | | | | | | | | | | Kurslardagi haftalar soni | | | | | | | | | Kurslardagi haftalar soni | | | | | | | | | |
| | | | | | | | | | | | | 38 | | 40 | | 40 | | 38 | | 18 | 38 | | 40 | | 40 | | 38 | | 18 | |
| | | | | | | | | | | | | semestrlar | | | | | | | | | semestrlar | | | | | | | | | |
| | | | | | jami | ma'ruza | amaliy | laboratoriya | seminar | kurs ishi | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| | | | | | | | | | | | | Semestrdagi auditoriya mashg'ulotlari haftalarining soni | | | | | | | | | Kredit taqsimoti | | | | | | | | | |
| | | | soat | % | | | | | | | | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | | | | | | | | | | | 240 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| **1.00** | | **Majburiy fanlar** | **5220** | | **1920** | **886** | **878** | **16** | **140** | **4KI** | **3300** | **20** | **20** | **20** | **16** | **20** | **4** | **20** | **8** | **0** | **30** | **30** | **24** | **19** | **30** | **8** | **23** | **10** | **0** | **174** |
| 1.01 | O'EYaT1404 | O'zbekistonning eng yangi tarixi | 120 | | 60 | 30 | | | 30 | | 60 | 4 | | | | | | | | | 4 | | | | | | | | | 4 |
| 1.02 | FI1304 | Falsafa | 120 | | 60 | 30 | | | 30 | | 60 | | | 4 | | | | | | | | | 4 | | | | | | | 4 |
| 1.03 | O'(R)T1204 | O'zbek (rus) tili | 120 | | 30 | | 30 | | | | 90 | | 2 | | | | | | | | | 4 | | | | | | | | 4 |
| 1.04 | XTIK1206 | Xorijiy til | 180 | | 60 | | 60 | | | | 120 | 2 | 2 | | | | | | | | 4 | 2 | | | | | | | | 6 |
| 1.05 | O'TSQ1603 | O'zbek tilining sohada qo'llanilishi | 90 | | 30 | | 30 | | | | 60 | | | | | | 2 | | | | | | | | | 3 | | | | 3 |
| 1.06 | EMTB1202 | Elementar matematikaning tanlangan boblari | 60 | | 30 | 10 | | | 20 | | 30 | | 2 | | | | | | | | | 2 | | | | | | | | 2 |
| 1.07 | UPdPs1608 | Umumiy pedagogika va psixologiya | 240 | | 60 | 30 | | | 30 | | 180 | | | | | 2 | 2 | | | | | | | | 3 | 5 | | | | 8 |
| 1.08 | UFz1306 | Umumiy fizika | 180 | | 60 | 30 | 14 | 16 | | | 120 | | | 4 | | | | | | | | | 6 | | | | | | | 6 |
| 1.09 | MAn1428 | Matematik analiz | 840 | | 300 | 150 | 150 | | | KI4 | 540 | 6 | 6 | 4 | 4 | | | | | | 9 | 9 | 5 | 5 | | | | | | 28 |
| 1.10 | ChA1210 | Chiziqli algebra | 300 | | 90 | 44 | 46 | | | | 210 | 4 | 2 | | | | | | | | 7 | 3 | | | | | | | | 10 |
| 1.11 | AnG1208 | Analitik geometriya | 240 | | 90 | 44 | 46 | | | KI2 | 150 | 4 | 2 | | | | | | | | 6 | 2 | | | | | | | | 8 |
| 1.12 | DAs1208 | Dasturlash asoslari | 240 | | 60 | 30 | 30 | | | | 180 | | 4 | | | | | | | | | 8 | | | | | | | | 8 |
| 1.13 | AL1305 | Algebra | 150 | | 60 | 30 | 30 | | | | 90 | | | 4 | | | | | | | | | 5 | | | | | | | 5 |
| 1.14 | DfT1408 | Differentsial tenglamalar | 240 | | 90 | 44 | 46 | | | | 150 | | | | 6 | | | | | | | | | 8 | | | | | | 8 |
| 1.15 | DFG1509 | Differentsial geometriya va topologiya | 270 | | 90 | 44 | 46 | | | | 180 | | | | | 6 | | | | | | | | | 9 | | | | | 9 |
| 1.16 | DMMM1406 | Diskret matematika va matematik mantiq | 180 | | 90 | 44 | 46 | | | | 90 | | | | 6 | | | | | | | | | 6 | | | | | | 6 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.17 | ENMS1809 | Ehtimollar nazariyasi va matematik statistika | 270 | | 120 | 60 | 60 | | | | 150 | | | | | | 6 | 2 | | | | | | | 6 | 3 | | 9 |
| 1.18 | NzM1304 | Nazariy mexanika | 120 | | 60 | 30 | 30 | | | | 60 | | | 4 | | | | | | | | 4 | | | | | | 4 |
| 1.19 | MFT1508 | Matematik fizika tenglamalari | 240 | | 90 | 44 | 46 | | | KI6 | 150 | | | | 6 | | | | | | | | 8 | | | | | 8 |
| 1.20 | MO'M1704 | Matematikani o'qitish metodikasi | 120 | | 60 | 30 | | | 30 | | 60 | | | | | | 4 | | | | | | | | 4 | | | 4 |
| 1.21 | KO'FN1510 | Kompleks o'zgaruvchili funktsiyalar nazariyasi | 300 | | 90 | 44 | 46 | | | | 210 | | | | 6 | | | | | | | | 10 | | | | | 10 |
| 1.22 | FAn1709 | Funktsional analiz | 270 | | 90 | 44 | 46 | | | KI7 | 180 | | | | | | 6 | | | | | | | | 9 | | | 9 |
| 1.23 | VHOB1807 | Variatsion hisob va optimallashtirish usullari | 210 | | 90 | 44 | 46 | | | | 120 | | | | | | | 6 | | | | | | | | 7 | | 7 |
| 1.24 | HUs1704 | Hisoblash usullari | 120 | | 60 | 30 | 30 | | | | 60 | | | | | | 4 | | | | | | | | 4 | | | 4 |
| **2.00** | | **Tanlov fanlar** | **960** | | **480** | **240** | **240** | **0** | **0** | | **480** | **0** | **0** | **0** | **4** | **0** | **16** | **0** | **12** | **0** | **0** | **0** | **0** | **4** | **0** | **16** | **0** | **12** | **0** | **32** |
| 2.01 | MAnTB2604 | Matematik analizning tanlangan boblari | 120 | | 60 | 30 | 30 | | | | 60 | | | | | | 4 | | | | | | | | 4 | | | | | 4 |
| | EM2604 | Elementar matematika | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.02 | MM2804 | Matematik modellashtirish | 120 | | 60 | 30 | 30 | | | | 60 | | | | | | | | 4 | | | | | | | | 4 | | | 4 |
| | IqM2804 | Iqtisodiy matematika | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.03 | KE2404 | Kombinatorika elementlari | 120 | | 60 | 30 | 30 | | | | 60 | | | | 4 | | | | | | | | 4 | | | | | | | 4 |
| | TME2404 | Trigonometriyadan masalalar echish | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.04 | DS2804 | Dinamik sistemalar | 120 | | 60 | 30 | 30 | | | | 60 | | | | | | | | 4 | | | | | | | | 4 | | | 4 |
| | AEO'2804 | Algebra elementlarini o'rganish | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.05 | AK2604 | Analizga kirish | 120 | | 60 | 30 | 30 | | | | 60 | | | | | | 4 | | | | | | | | 4 | | | | | 4 |
| | AAA2604 | Algebra va analiz asoslari | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.06 | KO'FNME2804 | Kompleks o'zgaruvchili funksiyalar nazariyasidan masalalar echish | 120 | | 60 | 30 | 30 | | | | 60 | | | | | | | | 4 | | | | | | | | 4 | | | 4 |
| | SME2804 | Streometriydan masalalar echish | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.07 | GYaE2604 | Geometrik yasash elementlari | 120 | | 60 | 30 | 30 | | | | 60 | | | | | | 4 | | | | | | | | 4 | | | | | 4 |
| | PMY2604 | Planimetriyadan masalalar yechish | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.08 | HO'FN2604 | Haqiqiy o'zgaruvchili funksiyalar nazariyasi | 120 | | 60 | 30 | 30 | | | | 60 | | | | | | 4 | | | | | | | | 4 | | | | | 4 |
| | O'N2604 | O'lchovlar nazariyasi | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | **JAMI** | **6180** | **0.0** | **2400** | **1126** | **1118** | **16** | **140** | **4KI** | **3780** | **20** | **20** | **20** | **20** | **20** | **20** | **20** | **20** | **0** | **30** | **30** | **24** | **23** | **30** | **24** | **23** | **22** | **0** | **206** |
| | | **Malakaviy amaliyotlar** | **570** | | 0 | | | | | | 570 | | | | | | | | | | | | | 2 | | 2 | | | 15 | 19 |
| | | **Yakuniy davlat attestatsiyasi** | **450** | | 0 | | | | | | 450 | | | | | | | | | | | | | | | | | | 15 | 15 |
| | | **Jami** | **1020** | | **0** | | | | | | **1020** | | | | | | | | | | **0** | **0** | **0** | **2** | **0** | **2** | **0** | **0** | **30** | **34** |
| | | **HAMMASI** | **7200** | **0** | **2400** | **1126** | **1118** | **16** | **140** | **4KI** | **4800** | **20** | **20** | **20** | **20** | **20** | **20** | **20** | **20** | **0** | **30** | **30** | **24** | **25** | **30** | **26** | **23** | **22** | **30** | **240** |

**Izoh:**

1. 1 (bir) kredit 30 (o`ttiz) akademik soatni tashkil qiladi. Bunda auditoriya yuklamasining kamida 50 foizini mustaqil ta'lim tashkil etadi.
2. Yakuniy davlat attestatsiyasi muddatlari tarkibiga bitiruv malakaviy ishini himoya qilish ham kiradi.
3. *"Falsafa" fanida "Dinshunoslik" va "Korrupsiyaga qarshi kurash" modullari, "O`zbekiston tarixi" fanida "Yangi O`zbekistonning taraqqiyot strategiyasi" moduli o`qitilishi ko`zda tutiladi.
4. Nazariya va amaliyot yaxlitligini ta'minlash uchun talabalarning malakaviy amaliyotlari bazaviy tashkilot va korxonalarda o'tkaziladi.

| O'quv jarayonining tarkibiy qismlari | Haftalar soni | Semestr | |
|---|---|---|---|
| Nazariy va amaliy ta'lim | 120 | 1–8 | Bitiruv malakaviy ishini himoya qilish yoki ixtisoslik fanlaridan Yakuniy davlat attestatsiya sinovi |
| Attestatsiyalar | 24 | 1–8 | |
| Kredit ta'lim tizimiga kirish | 8 | 1, 3, 5, 7 | |
| Malakaviy amaliyot | 19 | 4, 6, 9 | |
| Yakuniy davlat attestatsiyasi | 3 | 9 | |
| Ta'tillar | 10 | 1–9 | |
| **JAMI** | **184** | | |

**NamDU o'quv ishlari bo'yicha prorektori** — **D. Xolmatov**

**O'quv-uslubiy boshqarma boshlig'i** — **X. Mirzaaxmedov**

**Matematika fakulteti dekani** — **X.Mavlyanov**

**Matematik analiz kafedrasi mudiri** — **A. Mashrabboyev**

*Ushbu o'quv reja Namangan davlat universiteti Kengashining 2022-yil "30" 08 dagi № 1 - sonli majlisida muhokama qilinib, tasdiqqa tavsiya etildi.*