

**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: № 337/a  
«30» avgust 2024 yil



**"Mexanika muhandisligiga kirish va etikasi"**

**FAN DASTURI**

**Bilim sohasi:** 700 000 - Muhandislik, ishlov berish va qurilish sohalari

**Ta'lif sohasi:** 710 000 – Muhandislik ishi

**Ta'lif yo'nalishi:** 60713500- Mexanika muhandisligi

**Samarqand – 2024**

**Kurs ma'lumotlari**  
Course Information Form

|   |                           |   |  |   |   |
|---|---------------------------|---|--|---|---|
| Modul kodi<br>Code<br>MAS1050                   | O'quv yili<br>2024-2025   | Semestr<br>1                                      | ECTS – Kreditlar<br>1-semestr -3                   |   |   |
| Modul turi<br>Majbuliy                          | Ta'lim tili<br>O'zbek/rus |   | Auditoriya soatlari                                |   | Mustaqil<br>ta'lim<br>(soat/hafta)<br>Independent<br>Education<br>(hour/week) |
| Fan nomi<br>Title                               | Jami yuklama              | Ma'ruza<br>(soat/hafta)<br>Lecture<br>(hour/week) | Amaliy<br>(soat/hafta)<br>Practical<br>(hour/week) | Laboratoriya<br>(soat/hafta)<br>Laboratory<br>(hour/week) |   |
| Mexanika<br>Muhandisligiga<br>kirish va etikasi | 1-semestr -90             | 1-semestr -2                                      | -  |   | 1-semestr -4  |

|                                 |              |
|---------------------------------|--------------|
| Dastlabki shart<br>Prerequisite | Yo'q<br>None |
|---------------------------------|--------------|

|                    |               |
|--------------------|---------------|
| Semestr<br>Semestr | Kuzgi<br>Fall |
|--------------------|---------------|

|                                     |   |
|-------------------------------------|---|
| Kurs tili<br>Course language        | O'zbek, Ingliz, Rus<br>Uzbek, English, Russian      |
| O'quv kursi<br>Level of Course      | Birinchi kurs<br>First Cycle                        |
| Ta'lim yo'nalishlari<br>Course type | 60713500-Mexanika muhandisligi                      |
| Kurs toifasi<br>Course Category     | Asosiy<br>Core Courses                              |
| Dars shakli<br>Mode of Delivery     | An'anaviy (Yuzma – yuz muloqot)<br>Face – to – face |

|                                       |  |
|---------------------------------------|--|
| Ma'sul kafedra<br>Owner academic unit | Mexanika muhandisligi<br>Mechanical engineering    |
| Kursga ma'sul<br>Cours Coordinator    | Yuzbayeva Shohida;                                 |
| O'qituvchilar<br>Instructor(s)        | Fayziyev Zafar; Yuzbayeva Shohida;                 |
| Yordamchilar<br>Asistant(s)           | Fayziyev Zafar; Yuzbayeva Shohida; Omonqulov Orif; |

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|---|--|
| Fanni o'qitishdan maqsad<br>Course objectives | Umumiyl tushunchalarni berish mexanika muhandisligiga kirish va etikasi<br>fanida mexanika muhandisligi mutaxassisligi bilan tanishtirish<br>Consolidation of general mathematics culture, development of analytical<br>thinking   |
| Fanning mazmuni<br>Course content             | Oliy ta'lim tizimi va oliy o'quv yurtlari tarixi va ularning tuzilishi.<br>Mexanika muhandisligiga kirish va etikasi yo'nalishlari bo'yicha<br>rejalahtirilgan fanlar. Talabalar faoliyatini baholash mezonlari. Kredit<br>modul. Mexanika muhandisligiga kirish va etikasi ta'lim yo'nalishi<br>to'g'risida asosiy tushunchalar. O'zbekiston Respublikasi oliy o'quv<br>yurtlari va ularning mustaqul Respublukamizdagi o'rni. SamdaQU tarixi.<br>Bakalavr va magistr darajalari. Sohasi bakalavri.Bakalavrلarga quyilgan<br>asosiy talablar.<br><br>History of higher education system and higher educational institutions and<br>their structure. Introduction to Mechanical Engineering and planned<br>subjects in ethics. Criteria for evaluating student performance. Credit<br>module. Introduction to Mechanical Engineering and Basic Concepts of<br>Ethics of Education. Higher educational institutions of the Republic of<br>Uzbekistan and their place in our independent Republic. History of<br>SamdaQI. Bachelor's and Master's degrees. Bachelor's degree in the field. |

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|  | Basic requirements for bachelors.  |
| <b>Tavsiya qilingan yoki talab qilinadigan adabiyotlar ro'yxati</b><br>Recommended Or Required Reading | <ol style="list-style-type: none"> <li>Mirziyoyev Sh.M. Buyuk kelajagimizni mard va oljanob xalqimiz bilan birga quramiz. T. O'zbekiston. 2016 yil. 486-bet.</li> <li>Kadrlar tayyorlash milliy dasturi amalda. O'zbekiston Respublikasi Vazirlar Maxkamasining ta'lif tug'risidagi qarorlari. Toshkent, 1998.</li> <li>O'zbekiston Respublikasi oliy ta'lif tizimini isloh qilish bo'yicha me'yoriy hujjatlar. 1 qism. Toshkent, 1998.</li> <li>Normativne dokumenti po reformirovaniyu sistemi visshego obrazovaniya Respublik O'zbekistan. Chast II. Tashkent, 1999.</li> <li>Gosudarstvenny standart O'zbekistana. Gosudarstvennaya sistem standartov neprerivnogo obrazovaniya O'zbekistana. Visshee obrazovanie trebovaniya k obyazatelnomu minimummu sodedjaniya i urovnu podgotovki bakalavra po professionalno-pedagogicheskemu napravleniyu V162500-Texnologicheskie mashini i oborudovanie (pedagog). Izdanie ofisialnoe. Tashkent. 1999.</li> <li>Karimov I.A. "Barkamol avlod O'zbekiston taraqqiyotining poydevori". Toshkent. 1997 y.</li> <li>N. Rajabov. "Mutaxassislikka kirish". Toshkent. O'qituvchi. 1991 y.</li> <li>Robert McDowell. Fundamentals of HVAC Systems. Copyright © 2006, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. and Elsevier Inc Published by Elsevier 2006.</li> <li>Boboev S., Shukurov G., Ismanhodjaeva M. Isitish.- T.: "Yangi asr avlodi", - 2008. - 298 b.</li> </ol> |
| <b>Tavsiya etilgan qo'shimcha dastur komponentlari</b><br>Recommended Optional Program Components      | <p>Yo'q\ (bor bolsa yoziladi)</p> <p>None</p>  |

## Kursni o'rganish natijalari

### Course learning outcomes

|   |  |
|---|--|
| 1 | Fan dasturi bo'yicha chuqur nazariy bilimlarga ega bo'lishi;<br>To have in-depth theoretical knowledge of the science program;   |
| 2 | o'zlashtirilgan mexanika muhandislik va estetika tushunchalarni, tasdiqlarni tasavvur qila olishni;<br>Mastered mechanical engineering and aesthetics concepts, to be able to imagine confirmations;   |
| 3 | Mutaxassisligi bo'yicha bilimlarni puxta egallashi, mavzularda uchraydigan mexanika muhandisli va estetika tushunchalarni aniq tasavvur qila olishi, eng sodda texnikaviy jarayonlarni "til"ga o'gira olishni;<br>To thoroughly acquire knowledge in his specialty, to be able to clearly imagine the concepts of mechanical engineering and aesthetics encountered in the topics, to be able to translate the simplest technical processes into "language";   |
| 4 | Eng sodda jarayonlarni tahlil qilish uchun kerakli usullarni tanlay olishni, tahlil asosida amaliy xulosalar chiqara olishni;<br>To be able to choose the necessary methods for the analysis of the simplest processes, to draw practical conclusions based on the analysis;   |
| 5 | Talaba mutaxassisligi bilan bog'liq adabiyotlardagi tushunchalarini mustaqil tahlil qila olishi, shuningdek "Mexanika muhandisligiga kirish va etikasi" fanidan olingan bilimlarini mutaxassislik fani bilan bog'lashni; o'z fikr-mulohaza va xulosalarini asosli tarzda aniq bayon eta olish malakalariga ega bo'lishi va h.k. talab qilinadi.<br>The ability of the student to independently analyze his concepts in the literature related to his specialty, as well as to connect the knowledge obtained from the subject "Introduction and Ethics of Mechanical Engineering" with the subject of his specialty;<br>to have the skills to clearly state their opinions and conclusions in a reasonable manner, etc. is required. |

## Haftalik mavzular va tegishli tayyorgarlik ishlari

### Weekly Subjects and Related Preparation Studies

| Hafta<br>Week | Mavzular<br>Themes  | Resurslar<br>Related preparation |
|---------------|---|----------------------------------|
| 1.            | <b>Kirish.</b> Oliy ta'lif tizimi va oliy o'quv yurtlari tarixi va ularning tuzilishi.              | 1-darslik (I bob)                |
| 2.            | O'zbekiston Respublikasi oliy o'quv yurtlari va ularning mustaqul Respublukamizdag'i o'rni. SamdaQI | 1-darslik (I bob)                |

|     |  |                    |
|-----|--|--------------------|
|     | tarixi. Bakalavr va magistr darajalari. Sohasi bakalavri. Bakalavrlarga quyilgan asosiy talablar.  |                    |
| 3.  | Mexanika muhandisligiga kirish va etikasi yo'nalishlari bo'yicha rejalashtirilgan fanlar. Talabalar faoliyatini baholash mezonlari. Kredit modul | 1-darslik (I bob)  |
| 4.  | Mexanika muhandisligiga kirish va etikasi ta'lim yo'nalishi to'g'risida asosiy tushunchalar va tarixi.   | 1-darslik (I bob)  |
| 5.  | Umumiy odob-ahloq qoidalari haqida ma'lumotlar. Vazirlar Mahkamasining odob-ahloq qoidalariiga oid qonunlar bilan tanishtirish.                  | 1-darslik (II bob) |
| 6.  | Universitetda tasdiqlangan odob-ahloq va ichki tartib qoidalari haqida ma'lumotlar   | 1-darslik (II bob) |
| 7.  | Mexanika muhandisligi kafedrasи tarixi   | 1-darslik (II bob) |
| 8.  | Gaz ta'minoti tizimining tarixi hozirgi ahvoli va rivoji. Gaz taminoti tizimlari. Gaz ta'minotida ishlataladigan quvurlar va armaturalar         | 1-darslik          |
| 9.  | Binolarni isitish tizimlari va shakllari. Isitish tizimlari turlari. Bir va ikki quvurli isitish tizimlari                                       | 2-darslik (I bob)  |
| 10. | Zamonaviy isitish tizimlari.   | 2-darslik (I bob)  |
| 11. | <b>Isitish tizimi quvurlari.</b> Isitish tizimining zamonaviy quvur va armaturalari.   | 2-darslik (II bob) |
| 12. | Binolarda havo almashtirish tizimlari. Tabiiy va sun'iy havo almashtirish. Ventilyatorlar va ularning turlari.                                   | 2-darslik (II bob) |
| 13. | Issiqlik ishlab chiqarish uskunlari va ularning turlari. Qozon qurilmalarining ko'satkichlari va tasnifi.  | 2-darslik (II bob) |
| 14. | Binolarni energiya tejamkorlik muhandislik kommunikatsiyalari.   | 2-darslik (II bob) |
| 15. | Noan'anaviy energiya manbalari: quyosh energiyasi, shamol energiyasi, biogaz va er osti issiq suvlardan foydalanish                              | 2-darslik (II bob) |

## Baholash jarayoni

Evaluation System

| Mashg'ulot turi<br>Activities  | Soni<br>Number | Baholash<br>Percentage of Grade |
|--|----------------|---------------------------------|
| <b>Darsga qatnashish</b><br>Attendance / participation                                 | 30             | 15                              |
| <b>Laboratoriya ishi</b><br>Laboratory   | -              | -                               |
| <b>Amaliy ish (qo'shimcha vazifa)</b><br>Application                                   |                |                                 |
| <b>Kurs ishi</b><br>Field work   |                |                                 |
| <b>Maxsus kurs amalyoti (ish joyida)</b><br>Special course internship (work placement) |                |                                 |
| <b>Testlar</b><br>Quizzes / studio critcs  | 5              | 5                               |
| <b>Uyga vazifani baholash</b><br>Homework assignments                                  | 5              | 10                              |
| <b>Ijodiy ish (taqdimot)</b><br>Presentations / jury                                   |                |                                 |
| <b>Loyiha ishi</b><br>Project  |                |                                 |

|   |   |     |
|---|---|-----|
| Seminar<br>Seminar / workshop                                 |   |     |
| Oraliq nazorat<br>Mid -Terms                                  | 2 | 20  |
| Yakuniy nazorat<br>Final                                      | 1 | 50  |
| O'zlashtirish ko'rsatgichi<br>Percentage of in – term studies |   | 50  |
| Yakuniy imtihon bahosi<br>Percentage of final examination     |   | 50  |
| Jami<br>Total   |   | 100 |

## ECTS taqsimoti

ECTS workload table

| Topshiriqlar<br>Activities  | Soni<br>Number | Davomiyligi (soat)<br>Duration (hour) | Umumiy yuklama<br>Total workload |
|---|----------------|---------------------------------------|----------------------------------|
| Mashg'ulot soati<br>Course hours  | 15             | 2                                     | 30                               |
| Laboratoriya ishi<br>Laboratory   |                |                                       |                                  |
| Amaliy ish (qo'shimcha vazifa)<br>application   |                |                                       |                                  |
| Kurs ishi<br>Field work   |                |                                       |                                  |
| Mustaqil ta'lif (maslahat)<br>Study hours out of class  | 5              | 2                                     | 10                               |
| Maxsus kurs amalyoti (ish joyida)<br>Special course internship (work placement)                             |                |                                       |                                  |
| Uyga vazifani baholash<br>Homework assignments  | 5              | 2                                     | 10                               |
| Testlar / Viktorina<br>Quizzes / studio critics   |                |                                       |                                  |
| Loyiha ishi<br>Project  |                |                                       |                                  |
| Ijodiy ish (taqdimot)<br>Presentations / seminar  | 5              | 1                                     | 5                                |
| Oraliq nazorat<br>Mid – terms (Examination +Examination prep. Duration)                                     | 1              | 10                                    |                                  |
| Yakuniy nazorat (nazorat va nazoratga tayyorlanish soati)<br>Final (examination +examination prep.Duration) | 1              | 15                                    | 15                               |
| Jami yuklama<br>Total workload  |                |                                       | 90                               |
| Jami yuklama / 30 (soat)<br>Total workload / 30(h)  |                |                                       | 90/30=3                          |
| Kredit<br>ECTS credit   |                |                                       | 3                                |

|                                      |                                    |
|--------------------------------------|------------------------------------|
| Qo'shimcha eslatmalar<br>Extra Notes | Yo'q\ (bor bolsa yoziladi)<br>None |
|--------------------------------------|------------------------------------|

Fan dasturi Mirozo Ulug'bek nomidagi Samarqand davlat Arxitektura-qurilish universiteti kengashning 2024 yil 30-avgustdaggi 1-sonli bayonnomasi bilan ma'qullangan.

Kafedra mudiri:

Fayziyev Z.X

Tuzuvchilar:

Yuzbayeva Sh.Z