[A-3]COURSE SYLLABUS

1. Course Description (Approximately 100 words)

Human participation in modern production is steadily declining, mainly due to the use of machines and mechanisms, robots and manipulators, and the expansion of automatic control systems.
Each of the educational technologies presented in this course contains information materials about the conditions for the training, the pedagogical purpose, objectives and expected results, the curriculum, incorporates teaching methods and tools. It also includes a technological map of the lesson, a step-by-step description of how the teacher and the learner interact in the course.
The course content includes introduction, conceptual bases of educational technology, lecture on each topic, technology of teaching in practical and laboratory lessons. The data is maximized and organized. Various forms, charts, and drawings have been used to enhance

2. Course Goals and Objectives (Approximately 100 words)

The main purpose of the course "Mechanics of robots and manipulators" is to teach masters to use modern robots and manipulators in their production, to identify their characteristics, to know the ways and ways to improve them.
The tasks of teaching mechanics of robots and manipulators are:
- Creation of kinematic schemes of industrial robots and manipulators;
- Structural analysis of manipulators;
- Determination of kinematic and technical characteristics of manipulators and robots;
- kinematic analysis of the manipulator;
- dynamic analysis of the manipulator;
- Identification and organization of areas for robots and manipulators;

3. Textbook (Title, Author, Publisher, Year of Publication, etc.)

1. [illegible]. Robot va manipulautorlar mexanikasi. (Ma’ruza kursi) o’quv qo’llanma. Toshkent 2006
2. [illegible]. 1990. 224 [illegible]

4. Reference

1. Jo’raev A. Mavliyaviyev M.R, Abdukarimov T.A Miraxmedov J.Y Mexanizm va mashinalar nazaryasi Toshkent, O`qituvchi, 2004.
2. Frolov K.V. Mexanizm va mashinalar nazaryasi.(Tarjima) Toshkent, O`qituvchi, 1990.

5. Course Requirements and Grades

Course prerequisites:
Students should have the knowledge of "Higher mathematics", "Resistance of materials", " Theoretical mechanics", and "Drawing geometry".
Grading System:
Homework 15%
Design Project 15%
Mid-term Exams 35%
Final Comprehensive Examination 35%
Total 100%
5=86-100%
4=71-85%

6. Course Calendar

Week	Main Content
1	Robotlar va manipulyatorlar mexanikasi fani vazifalari, asosiy tushunchalar.
2	Sanoat robortlarini klassifikatsiyasi.
3	Ishchi parametrlari, ishlatilish sohalari.
4	Manipulyatorlarning texnik ko'rsatkichlari.
5	Manipulyatorlarning servis burchaklari va koeffitsientlarini hisoblash.
6	Kinematik sxemalarni tanlash.
7	Monipulyatorlarni strukturaviy sintezi.
8	Monipulyatorlarning kinematik taxlili. Metodlari.
9	Robot va monipulyatorlarni kinematikasi.
10	Robot va monipulyatorlarni teskari masalasi.
11	Robot va monipulyatorlarning dinamik taxlili.
12	Sanoat robortlarini xarakat tenglamalarini chiqarish uslubi.
13	Sanoat robortlarini aniqlash.
14	Monipulyatorlarni boshqarish sistemasi.