[A-3]COURSE SYLLABUS

1. Course Description (Approximately 100 words)

Nowadays nearly all modern production lines as in heavy machinery industry so in automotive and textile industries are fully automated. In order to keep competitability in condition of global competitions it necessary to simultaniously improve production lines to reduce tact time and cost and increase the capability of production meeting the requiments for quality of products. The goal the current course is to prepare specialists for the execution of above mentioned tasks.

2. Course Goals and Objectives (Approximately 100 words)

The main goal of the course is to provide students information about basics of automation of production processes. Guide them to design specific production line for particular purposes. In order to achieve this goal it is necessary to get following objectives:
* Get information about basics of automation of production lines;
* Students will be guided to independently design a particular automated production line for targeted production program;
* Select the most appropriate machines and design loading - unloading systems for various operations and lines;
* Learn writing the part program for CNC machines for machining and other operations;
* Calculate the technical economical features of automated lines.

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

1. Automated design basics. P.I. Norenkov. Moscow. Publishing house of Moscow State Technical University. 2002.
2. Automated enterprize machines. L.V. Peregudov, A.N. Khoshimov. Tashkent. 2001.

4. Reference

1. Metal cutting technologies in CNC machines. A.M. Mamajonov and others. Tashkent. Publishing House "East". 2007.
2. Automation of Production Processes. M.M. Kuznetsov, L.N. Volchkevich and others. Moscow. Publishing house of Moscow State Technical University. 2002.
3. CNC machines. G.N. Molchanov, K.I. Smentakin. Tashkent. Publishing house "Teacher". 1993.

5. Course Requirements and Grades

86-100 "A" Making the conclusion and decision, being able to think positively, observe independently, use knowledge practically, recognizing the meaning, knowing and telling the meaning of subject, getting the idea.
71-85 "B" Being able to think independently, use knowledge practically, recognize meaning, knowing and telling the meaning of subject and getting the idea.
55-70 "C" Recognizing the meaning, knowing the telling the meaning of subject, getting the idea.
0-54 "D" Having no exact idea.
Home Work 10%
2 Mid-Term Exams 60%

6. Course Calendar

Week	Main Content
1	uction into course: information about mechanization and automation of produ
2	Automation methods of production processes.
3	Automation of part loading systems with special loading devices.
4	Automation of production processes.
5	Automation systems of production processes.
6	Automation of processes of loading - unloading and clamping of parts.
7	Automation of product separation and quality control.
8	CNC machines.
9	Complex automation of production processes.
10	Types of robotic technological complexes.
11	Automation of assembling processes.
12	Complex automation in mass production.
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