

PROSPECTS FOR CNC AND ROBOTICS IN MACHINERY PRODUCTION

(Name of the discipline)

SUMMARY OF THE CURRICULUM OF THE DISCIPLINE

Specialization 1 36 80-02 Innovative Technologies in Mechanical Engineering

Profile Mechanical Engineering and Engineering Science

Qualification: Master of Science

	Form of Training	
	Full Time	Correspondent Course
Year	1	1
Semester	1	1
Lectures, hours	54	12
Laboratory Classes, hours	18	4
Exam, Semester	1	1
Classroom hours in the academic curriculum	72	16
Self-Training, hours	108	92
Hours in Total / Credit Units	180 / 4	180 / 4

1. The main objective of the discipline is to train the students some practical skills to incorporate robotic equipment and CNC machines in developed technological processes.

2. Learning Outcomes

As the result of mastering the discipline a student is **to know**:

- technological application of various CNC machines;
- technological application of industrial robotic equipment;
- the peculiarities of the development of technological processes with CNC machinery included.

to be able to:

- create CNC machining programs to produce parts on CNC machines;
- make a rational use of CNC machining equipment;
- to calculate norm setting for CNC technological operations.

to possess:

- the techniques to design CNC machining operations;
- the techniques to design manufacturing robotic operations;
- basics to create code of CNC machining programs and robotic equipment.

3. Required competences

Mastering the discipline is to provide the competences below:

Codes of the competences mastered	Names of the competences mastered
CK-3	Know the ways to enhance CNC machines and robotic equipment and the spheres of their effective use

4 **Education Technologies:** conventional, multimedia using computers

1. linguistic foundations and to reach the appropriate level of English to be able to solve specific communicative tasks within various spheres of professional and research fields.