

DESIGN AND TECHNOLOGICAL PRACTICE

(course title)

INTERNSHIP COURSE SYLLABUS

ABSTRACT

Specialty 6-05-0722-05 "Production of products based on three-dimensional technologies"

	STUDY MODE
	full-time
Year	3
Semester	6
Total course duration in hours / credit units	216/6

1. Internship course outline (aims and objectives)

The goals of the internship are: - familiarization with the methods of design and production of machine-building products; - familiarization with the structure of enterprise management; - familiarization with the methods of creating three-dimensional objects of machine parts, the principles of geometric shape design and ways to create a three-dimensional distribution of properties across the section of parts; - familiarization with the main and auxiliary equipment of the enterprise, providing the processes of forming three-dimensional products.

The objectives of the practice are: - to prepare the future specialist to perform professional functions and social adaptation in the conditions of production; - study of the software used in the enterprise for three-dimensional design of objects; – learn how to create and analyze the design of three-dimensional parts within the framework of end-to-end digital production technology with structural connection workstation - multi-coordinate processing on equipment.

2. Course learning outcomes

Learning outcomes:

– to consolidate theoretical knowledge the basic principles of designing three-dimensional products using SolidWorks or similar programs, technological techniques for the production of parts using multi-coordinate processing, the device and principle of operation of metal-cutting and other equipment for processing products, methods of directional formation of material properties of parts; - the basics of drawing up technological and design documentation;

– to master practical skills work in software products for three-dimensional design of objects; – analyze the manufacturability of a three-dimensional part;

– to develop practical expertise technological process development skills; - the main technological processes of obtaining products by methods of three-dimensional technologies; - skills of working with reference literature and regulatory and technical materials.

3. Competencies

Master the basics of designing products made of materials used in additive technologies, calculations for rigidity, strength, accuracy and reliability, evaluation of the effectiveness of design decisions

To be able to use computer software to simulate the main technological processes of additive technologies, to optimize them based on the results of modeling

4. Form of midcourse evaluation

The defense of the report on the implementation of the internship program is conducted orally.