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## DEVELOPMENT OF THE TECHNOLOGY OF MAKING ANTIQUE EQUIPMENT FROM WOODEN MATERIALS BASED ON AN INNOVATIVE APPROACH.

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## ABSTRACT

This article describes the process of preparing future professionals to work in new conditions, pedagogical innovation, innovative approach, the goals, objectives, stages of pedagogical practice of students, the organization and conduct of internships in higher education.

Key words: future professionals, pedagogical innovation, innovative approach, pedagogical practice.

Cutting wood and the processes that take place in it. Needle shape. Sheep for slaughter. Types of movement in cutting, head movement. Methods of mechanical processing of wood - cutting, planing, drilling, planing, grinding, etc. The main indicators in the processing of wooden details are the cleanliness of the processed surface, the accuracy of the detail, etc. Structural and functional tasks of woodworking equipment, assembly, connection, placement. Technological accuracy. Types of equipment according to use - universal, specialized, special machines. Types of equipment according to processing - positional and transfer machines. Types of equipment according to the method of processing and the task performed - circular saw, band saw, reamer, reamer, four-way longitudinal milling, milling, shape cutter, drillengraver, drill-installer, lathe, a grinder, a collector of details. Elements of equipment. Fixing and rotating the cutting tool of the lathe using the spindle, fixing and rotating the zagotovka on the lathe. Installing the cutters of the machine tool on the knife shaft and giving them a cutting action. Transmission and adjustment of the working bodies of the machine through support. Transmission of the zagotovka of the transfer machine using a roller. Transferring sawdust of a circular saw through a crawler conveyor. Moving the zagotovka next to each other using a belt conveyor. Transfer of long bruxoid parts by double chain conveyor. Fixing the material through the carriage and transferring it to the working bodies of the machine tool. Installation of the zagotovka before working on the table. Generation of active force and torque in working bodies through electric drive. Transfer and compaction of details by hydrotreating. Hydro pump - as a source of hydraulic energy. Passing compressed air through a pneumovalve only in one direction. Cross cutting on single and multiple circular saw machines. Multiple cut lengthwise on a multi-saw circular saw machine. Sawing of sheet materials on a cutting circular saw machine. Cutting of sheet metal on circular sawing machines. Cross cutting using circular saws with hard alloy plates. Circular sawing on steel flat circular saws. 6 Types of equipment. Cross cutting and longitudinal cutting equipment. Sheet material cutting machines. Grinding machines. Reaming machines. Four-sided longitudinal milling machines. Drilling-mounting, drilling-engraving machines designed for opening holes and long grooves. Use of edge milling cutters, drills, countersinks for slot opening on drilling-engraving machines. The use of lathes to obtain details in the shape of a



**UIF = 8.2 | SJIF = 5.955** ISSN: 2750-3402 rotating body. Creating a smooth and flat surface on grinding machines. Sizing on calibrating grinding machines. Reismus machine tools. Methods of mechanical processing of wood - sawing, planing, milling, etc. The group of combinations of furniture items - separable and non-separable combinations. Formative compounds. Metal fasteners for attaching furniture details. Detachable joints - hinged, hinged, roller, etc. Non-separable joints - glued, nailed, stapled, etc. Dependence of the radii of bending it on the thickness of the detail so that the wooden details do not break. Bending MDF boards with a saw. Making the bottom part of carpentry boxes from DVP. Making bent-glued boxes from 3-5 layers of veneer. Production of plastic bags by casting or extrusion based on thermoplastic polymers. Types of wooden construction. Types of furniture and their elements. The use of mirrors, drawers and doors in the dressing room. Types of chairs - for work, for leisure, etc. Eurostraps are currently widely used fasteners in furniture production. Standardized methods of determining quality indicators of furniture. Control of the width of the openings in the furniture with the help of nutromers. Determining the thickness of transparent lacquer coatings of furniture with a MISS-11 microscope. Determining the strength of a children's bed by the effect of vertical periodic force on its base. Determining the durability of wooden chairs by placing a load on the seat and shaking it periodically on the front and back legs. Determining the integrity of desks by applying a periodic horizontal force to the lid.

Sawing technology: Round logs intended for receiving sawn materials. Use of sawmills before independence and band saw equipment after independence in wood sawing enterprises in Uzbekistan. Useful output of boards during sawing. Getting planks as the main product in the sawing process. Sawing of the beam in the razval method, where the saw blades are parallel on the transverse surface. 7 Thin and thick boards. Core and center boards that can be removed from the center of the beam. When calculating the thickness of the board in the case of sawing, take into account the thickness of the board, the thickness of the saw blade, and the allowance for construction. Empirical method of determining board dimensions based on the Pythagorean theorem about legs and hypotenuses. The narrowing of the diameter of the beam along the length leads to a decrease in the width of the boards. Reducing the thickness of the saw to reduce the size of the chips. Cutting boards in the Pythagorean zone across the top. Reducing the thickness of the board to reduce the obzola rake. When boards of the same thickness are taken from the beam, the size of the slats increases with distance from the center. In the razval method with a brush, cut the log in the 1st cut, and the brush in the 2nd cut. Adverse effects of planing successive thin boards in planing lumber. The formation of chips during slicing, side cutting and cross cutting. Saw blades in sawmills, band saw cutting equipment.

Bringing logs to the sawmill by land, rail and water transport. Softening of wood in ponds. Conveyor processing of boards without storing them in a sawmill. Cracking of stored timber when moisture content is below 30%. Quality preservation of logs under water. A favorable environment for the development of fungi in wood. Quality preservation of wood in a dry state by peeling the bark. Use of loaders for transporting logs within the enterprise. Using band saw equipment to cut large logs. Low current costs in sawmills, high productivity. Low cost, easy to install, and low power requirements of horizontal band sawing equipment. The slope of the sawmill floor from top to bottom. Use of wood sawing waste in the boiler room for heating the wood sawing shop. Improvement of air circulation in the vertical direction of



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the spaces in the stacks of sawn materials. Improvement of horizontal air circulation of pads in stacks of sawn materials.

Drying and protection of wood: Loss of moisture in wood by drying. Dependence of the rate of heat transfer during drying of wood on the rate of evaporation of moisture. Steam saturation in atmospheric conditions. Transferring heat from a heat carrier to a drying agent using a heater. Movement of moisture due to moisture difference, moisture permeability. Drying agents, steam, used gas, air, etc. Remote control of air speed through thermoanemometers. Evacuation of accumulated condensate using condensate drains. Application of 8 methods of heating with high frequency current in dielectric drying of wood. Direct contact of wood with a heated solid body in conductive wood drying.

Technology of wooden products: use of the thermo-rolling method in the preparation of sheet parts for finishing their surfaces. Plywood, MDF, bent-glued wooden materials - as construction materials. Improving the appearance of a wooden product with the help of a protective-decorative curtain. Use of textile materials (gauzes) as a surface covering. Making frames by connecting brusoks at an angle. Milling, turning and drilling are the technological operations performed during the final mechanical processing of grinding wheels. Taking into account the anisotropy of wood in the construction of wooden products. Taking into account the technological complexity, the optimality of the construction and the softness of the elements when evaluating the technological quality of a wooden product with a case. Useful output of zagotovka in cutting sawn building materials in the furniture industry. Cutting oblique zagotovka in the preparation of curved line details from wood. Designation of the rolling papers. In furniture, brusok, shit, brus, frame, etc. application of details. Moisture content of wood used in furniture. The influence of equipment, devices, devices on the accuracy of details obtained during the technological processing of zagotovka. Taking into account the resonance properties of wood when designing a musical instrument. The volume of the construction of the wardrobe intended for clothes. Moisture content of outdoor wood products. Requirements for window frames. Measuring devices for controlling the dimensions of wooden details. Elastic limit of wood species. Optimum moisture content of wood intended for bending. Relying on the technological base in the processing of wood products. When covering the surface with ribbed veneer, the unevenness of the surface to be covered. Serial production of goods. Types of lattice furniture.

Technology of wood composite materials: Adhesion and cohesion. In glued wood, splitting occurs at the glue-wood interface, at the glue seam, or in the wood itself. Reduce the viscosity of the glue by partial heating. Improvement of melting properties of glue. As the dry residue of the glue decreases, its hardening slows down. Adhesives that must be dried after being applied to the veneer. When soaking veneer with glue, perform the deepest and 9th-quality soaking using the autoclave method. The method of soaking the veneer with glue is the loss of the solvent in the alternately hot, then cold solution of the glue. Partial vacuum formation in the veneer spaces during the autoclave application of veneer with glue. Applying the principle of symmetry when assembling a package from veneers applied glue before pressing in plywood construction. Glued veneer by pressing.



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