



EMPLOYEE TRAINING FOR DIFFERENT ECONOMIC ACTIVITIES

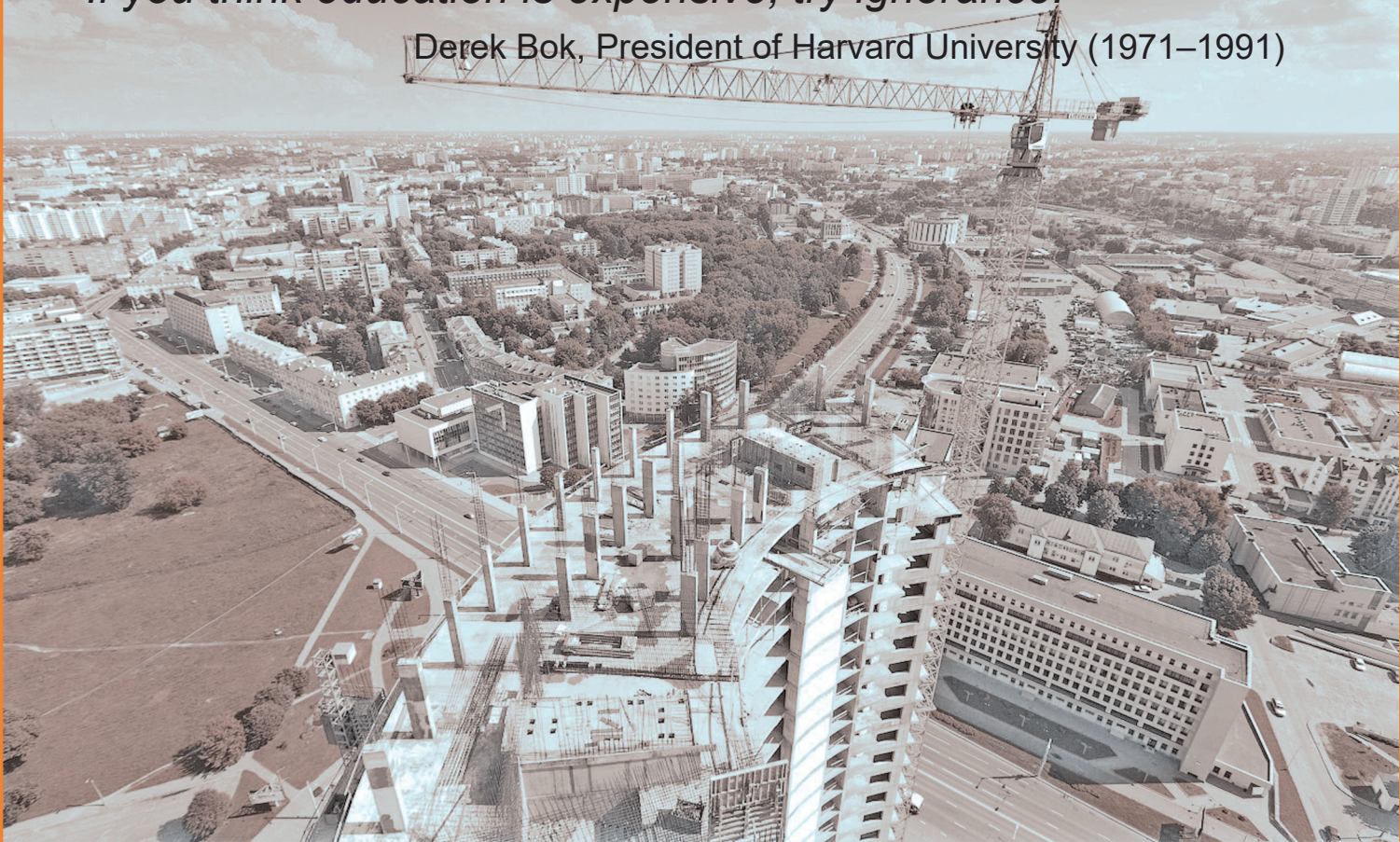


VOCATIONAL EDUCATION –
PROFESSIONAL IMAGE AND SOCIAL STATUS OF AN INDIVIDUAL,
WELL-BEING OF THE STATE



If you think education is expensive, try ignorance.

Derek Bok, President of Harvard University (1971–1991)



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ACTIVITY PROFILE OF THE REPUBLICAN INSTITUTE FOR VOCATIONAL EDUCATION

Educational Institution “Republican Institute for Vocational Education” (RIPO, <http://ripo.unibel.by/>) is the national leading institution in the Republic of Belarus in the field of vocational education development. It was established in January 1993 by the initiative of the Ministry of Education of the Republic of Belarus for scientific and methodological provision of vocational education and training (VET), as well as further training of pedagogical staff in VET in the Republic of Belarus.

The main objective of the RIPO is the development and implementation of the vocational education policy meeting the socio-economic needs of the country. The RIPO tasks are focused on the improvement of the legislative framework governing VET; studies on the labour market (LM) and economic issues in VET; researches on the National Qualification Framework in terms of transformation of LM needs into the VET parameters; studies and pilot projects on quality assurance and key indicators in VET; development of VET curricula and retraining programs for the youth, adults, unemployed and disabled people; re-design and modernization of VET content according to the sustainable development goals and LLL priorities; introduction of competence-based approach and new didactics in VET; methodological provision and training aids for VET specialties; professionalization and further training of VET managers, teachers and trainers; nation-wide coordination of VET initiatives and dissemination of the best international experience in the field of human resources development.

The RIPO is engaged in training of scientific staff with higher qualification, specialists with secondary specialized education, vocational training, skills upgrading, internship, retraining of the pedagogical staff of VET sphere, workers (employees) for different types of economic activities. Within the RIPO structure, there are also the faculty of retraining and skills upgrading, postgraduate school, center for VET informatization, coordination center for the

CIS initiatives in VET, editing and publishing center for educational books and training aids, department for comparative research and international cooperation in VET, with the total number of employees over 800.

The organizational structure of the RIPO embraces the VET research institute, a postgraduate center and six affiliates, among them five colleges, which are its pilot projects platforms and VET Centers of Excellence for staff training for innovative productions in the field of mechanical engineering, automobile technologies, construction operations, cabinet-making, road construction works, for housing and public utilities, agro-food processing and control, as well as for forming the key competencies in the field of renewable energy resources and energy saving. Annually more than 2000 people undergo vocational training and retraining in the RIPO's VET Centers of Excellence (specialists of enterprises, students of the national and foreign educational institutions, unoccupied population) and around 4000 pedagogical staff of the Republic of Belarus undergo retraining and qualification upgrading at the Faculty of the RIPO.

Over the years, the RIPO has intensively developed international cooperation. Since 1998, the RIPO has been a focal point and permanent partner of the **European Training Foundation** (ETF) in Belarus, with the implementation of several EU projects and initiatives in the field of VET and LM. In 1998 with the support of the ETF there was established the National Observatory of Belarus under the RIPO, with implementation of ETF annual projects (e.g. *“Lifelong learning in Eastern Europe”*, *“Sustainable Development” in Belarus*, *Work-based learning “Skills Connexion Project”*, *National Survey of Vocational Teachers and Trainers in Belarus*, etc.) enabling international research, conferencing and networking in the field of Human Resources Development.

Since 1999, the RIPO has been included in the worldwide network of **UNEVOC members**, being the official representative office of UNEVOC in Belarus.

By the Resolution of the Heads of Governments of the CIS member states, in 2011 the RIPO was

granted a status of the Reference Organization for the CIS member states in staff vocational training, retraining and skills upgrading in VET system.

Since 2014, the RIPO has become the National Operator for **WorldSkills** in the Republic of Belarus, developing the national school of professional élite of skilled workers according to international standards, and preparing the national team of young professionals for participation in the WorldSkills International competitions – 2021 Shanghai, People's Republic of China.

An important direction of the RIPO's activities in the international arena is the implementation of upskilling and retraining programs for VET managers, teachers and trainers, and establishment of the state-of-the-art **VET Centers of Excellence** for different types of economic activities on the basis of the network model.

Research works are carried out with the participation of competent national experts from regions of Belarus (the RIPO has support points in all 7 regions), as well as in the framework of the international co-operation. Among the RIPO partners there are the European Training Foundation, UNESCO, UNEVOC, the UNESCO Institute for Information Technologies in Education, ILO – International Labour Organization, BIBB – Federal Institute for Vocational Education and Training (Germany), Innovationsaustausch und Forschungsinstitut für berufliche Aus- und Weiterbildung (ITF, Germany), Swiss Federal Institute for Vocational Education and Training (SFIVET), the World Bank, Folkuniversitetet Uppsala (Sweden), Institute for Terotechnology (Poland), Institute for International Cooperation of the German Adult Education Association (DvV international), Kaunas Vocational Training Center for Business Specialists (Lithuania), Holding “Kәсіпкер” (Republic of Kazakhstan), St. Ignatius of Loyola College (Lithuania), Technical Institute for Vocational Training CHRISTIANI (Germany), manufacturing enterprises-suppliers of industrial and training equipment from the USA, EU and NIS countries (FESTO, Haas Automation inc., Siemens, Sandvik, KELLER, Hecht Electronic, LD Systems, Lucas Nuelle and others).

Since 1994, the RIPO has carried out over 300 scientific research and project works, including international. The most significant among them, implemented over the last 10 years, are as follows:

- Project **“Employment and Vocational Education and Training in Belarus”** funded by the European Union.

- International research project **“The expansion of the EU-approaches to providing the partner-countries higher education quality assurance: Expanding Quality Assurance” (QM&CQAF)** in the framework of Erasmus+ Program, Jean Monnet sub-program, intended to carrying out joint studies and activities in the field of education quality assurance together with international partners from Croatia (University North, the leading partner), Sweden (Folkuniversitetet Uppsala), Russia (Tomsk State University, Ivanovo State University, Pastukhov State Academy of Industrial Management), Netherlands (Consulting company “Revalento”).

- International research project **“Ecological Education for Belarus, Russia and Ukraine” (EcoBRU)**, in the framework of TEMPUS program in consortium with a renowned German educational institution in the field of ecological education – the Institute for Technology and Education/ITB Bremen.

- International research project **“Expanding Quality Spirit in VET” (Q & VET)**, which aims to develop guidelines for VET-leadership in how to implement a Quality process in a VET-institute in the framework of the EU program “Leonardo da Vinci”). It was implemented jointly with VET experts from Austria, Belarus, Italy, the Netherlands, Russia, Turkey and Sweden.

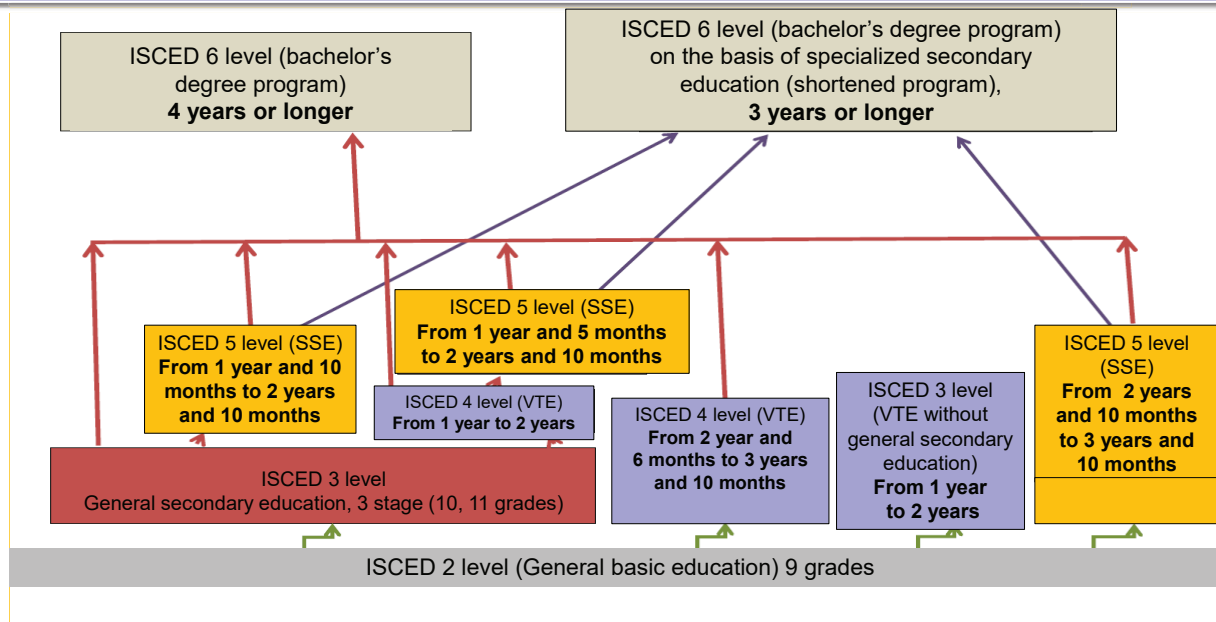
- Research project of the European Training Foundation **“Torino Process 2018-2020”**.

- International project **“Teacher Education and Training in Tourism in Belarus” (TETVET)** in the framework of “Tempus IV” program in consortium with the University of Paderborn (Germany) as a leading partner.

- Project on outfitting the Laboratory for metrological quality control of spare parts production on the premises of the Industrial Pedagogical College affiliated to the RIPO with financial support from the German Government in the framework of SEQUA program, as well as establishment of the innovative Laboratory for woodworking, outfitted with high-performance CNC machines produced by IMA Klessman AG.

Possessing a vast and a long-standing experience in international cooperation with different countries and in provision of highly professional staff for their national economies, the RIPO is ready for a mutually beneficial interaction in the field of vocational education development.

VOCATIONAL EDUCATION SYSTEM OF THE REPUBLIC OF BELARUS



Continuous development of fast evolving machinery and technologies requires staying-ahead training of workforce in various innovative industries. Vocational schools of the Republic of Belarus provide services in vocational education and training of highly qualified specialists for various industries.

This catalogue includes a list of vocational careers and jobs available for vocational education and training and information on job duties and tasks of a worker (employee).

In educational training programs to qualify a worker (a specialist), timing and training programs are determined by the level of manufacturability of profession and applicant's preparation.

Further information can be obtained from educational institution "Republican Institute for Vocational Education" of the Ministry of Education of the Republic of Belarus.

Qualifications: Rock Removing Machine Operator
Stope Miner
Thickener Operator
Screener

JOB DUTIES AND TASKS

REMOVING MACHINE OPERATOR STOPE MINER

- mines minerals;
- cuts or channels along the face or seams of coal mines, stone quarries, other mining surfaces;
- does development work, such as opening up new passageways;
- operates mining and mine cutting machinery in compliance with the regulations for safe technical maintenance and operation;
- installs and performs maintenance of bottom hole assemblies of mining and cutting machines and equipment;
- performs rock mucking, loading and transportation by different ways;
- installs timbering, roof bolts, or cribs, to support walls and roof;
- performs a set of established activities to prevent a sudden release of gas and salt;
- conducts measures to ensure efficient use of energy resources;
- performs work in compliance with applicable safety, fire protection regulations;
- performs environment protection measures



THICKENER OPERATOR



- operates, maintains and repairs machines;
- monitors the technological process of slurry and sludge thickening;
- inspects machines or equipment for hazards, operating efficiency, malfunctions, wear, or leaks;
- examines samples visually or by hand to verify qualities of the thickening products;
- uses technological scheme and technological regulations for thickening process, tests samples to determine different measurements.

SCREENER

- performs dry screening with the use of vibrating screen sieves, sieve feeders, conveyors; operates vibrating screen sieves;
- uses materials subject to sieving according to the physical and mechanical properties and requirements of the standard;
- applies technical documentation to maintain and repair sieving machinery;
- monitors the qualities of sieving according to the technical regulations, cleans and replaces screen meshes, timely removes extraneous waste and big parts of rock;
- collects samples of initial materials or final products during sieving



Qualifications: Batcher Operator Crusher Operator Mill Operator

JOB DUTIES AND TASKS

BATCHER OPERATOR

- performs technological process of reagent dosing by metering devices, maintains and services chemical umbilicals, metering devices;
- operates and sets up the machinery used during the maintenance of the metering devices comprising 4 or even more units with the overall reagent consumption per unit that does not exceed at a total flow rate of reactants to the section 20 m³/h;
- prepares working mass, reagent solutions to obtain flotation with the desired concentration, their pumping them into the metering device;
- operates and maintains metering devices in compliance with applicable rules and regulations;
- complies with the technological regulations for preparation of the working mass and reagent solutions;
- applies technological regulations for preparation of the working mass and reagent solutions;
- monitors the technical condition of mixers, pumps and other machinery and equipment, eliminates equipment faults monitors the work of suction devices and ventilation systems;
- uses various types of lubricants in compliance with their properties



CRUSHER OPERATOR

- performs technological process of crushing with crushing machines with the production capacity from 200 to 700 ton per hour; complies with the requirements for starting materials and final products;
- processes and stores materials and products, takes samples for fraction analysis;
- operates crushing machines with the production capacity from 200 to 700 ton per hour;
- uses controlling and measuring tools in compliance with the principal of their application;
- uses starting material for crushing in compliance with the standard;
- applies technological regulations for crushing machinery maintenance;
- greases machinery in compliance with the operations manual;
- detects contamination and impurities affecting the quality of the crushed materials



MILL OPERATOR

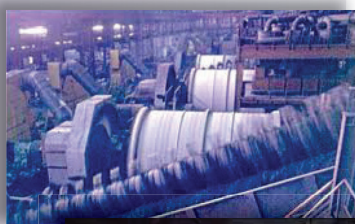
- performs technological process of grinding and sorting of raw materials and other materials by ball mills, sorters, sieve bends, hydro cyclones, several units comprising 4 and even more mills;
- regulates operation of the grinding machinery, ensures attainment of specified product (material) qualities;
- operates grinding machinery: ball mills, sieve bends, hydro cyclones, air ventilation systems;
- uses basic and additional materials in compliance with their intended use and properties;
- uses technology plan, complies with the guidelines for grinding;
- monitors operation of the mills with the use of automatic devices, sets operation according to specified parameters;
- regulates inflow of starting materials into the tank, feeders, units comprising 4 even more mills

Qualifications: Drying Machine Operator
Filter Operator
Floatation Tank Operator

JOB DUTIES AND TASKS

Drying Machine Operator

- performs technological process of drying in drying machines with the production capacity of over 120 tons per hour;
- prepares and loads drying machines; sets controls to calculate fuel consumption and regulates its load to the drying machine according to heat engineering specifications;
- operates all types of drying machines and equipment;
- loads fuel and regulates its consumption according to the applicable standards;
- monitors operation of drying regime, transporters, feeders, dust filters; adjusts controls to achieve the required heat regime to regulate the speed of air, steam and gas flows;
- sets drying parameters according to technical specifications

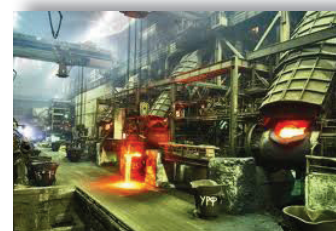


Filter Operator

- performs technological process of separating slurries by tending candle filters that operate under pressure in automatic mode according to the adjusted program and in combination with drum filters, by tending disk filters with the filtration area of 100–200 m² and filtering presses with the area of 100–500 m²;
- monitors operation of auxiliary equipment; starts and installs filters, transporters and other equipment;
- operates basic and auxiliary filtering machinery;
- uses technology chart, complies with the guidelines for filtering

Floatation Tank Operator

- performs technological process of floatation in floatation machines according to the technology chart; adjusts controls to regulate the required floatation regime and slurry consistency;
- monitors the flow of slurry that enters laboratory equipment, output and qualities of the concentrated products, pressure for floating machines, performs floatation and gravitation at concentrating machines;
- operates floatation machines, floatation tanks, MPM-30 machine, floatation and gravitation machines and equipment, concentrating machines;
- uses basis information on physical and mechanical properties of the floatated materials and reagents;
- uses technology chart, complies with the guidelines for floatation



Qualifications: Centrifugal Operator
Evaporator Operator
Granulating Machine Operator

JOB DUTIES AND TASKS

CENTRIFUGAL OPERATOR

- performs process of separating (clarification) of liquids with different specific densities; homogeneous mixture by super large capacity centrifuges and centrifuges with stored program control;
- monitors automatic input and output;
- adjusts centrifuges to operate in the specified mode; based on values of the measuring devices monitors and regulates input and output of the products, input of water according to its quantity, level and specific density;
- takes samples for laboratory analysis; prepares disinfecting solutions and performs sanitary cleaning of the machinery;
- operates complex centrifuges with stored program control in compliance with operations manual;
- applies greases, refined products while maintaining centrifuges according to their intended use and properties;
- reads technology chart, complies with the technological guidelines for centrifuge technology



EVAPORATOR OPERATOR

- performs technological process in compliance with the technology chart;
- complies with the technology chart and rules for its regulation;
- controls and regulates technological parameters based on controlling and measuring tools and results of the analysis, takes samples for laboratory analysis;
- maintains machinery, reinforcement and lines of communications in compliance with the technology chart, applies controlling and measuring tools;
- applies raw material according to their technological properties;
- complies with the requirements of the standards and terms of reference for the technological process of evaporation



GRANULATING MACHINE OPERATOR

- performs technological process of granulation with the machines equipped with automatic control and blocking tools under the direct supervision of an operator with a higher qualification; tends a granulation workshop according to the technology chart;
- monitors and regulates technological parameters according to the indicators of the controlling and measuring devices and analysis results by taking samples, visually checks quality of the granules;
- operates granulating machines in conformity with the operating manual; monitors operation of automatic systems;
- keeps records of the required raw materials and output of the finished products;
- complies with technology regulations when he/she performs technological process of granulation



Qualifications: Drilling Rig Operator
Assistant Driller for Exploitation and Development Drilling of Oil and Gas Wells (first)
Assistant Driller for Exploitation and Development Drilling of Oil and Gas Wells (second)

JOB DUTIES AND TASKS

Drilling Rig Operator

- sets up or operates a variety of drills to perform preparatory works: remove underground oil and gas, or remove core samples for testing during oil and gas exploration;
- maintains and adjusts drilling machinery in order to ensure proper performance;
- removes core samples during drilling in order to determine the nature of the strata being drilled;
- administers drilling process;
- monitors progress of drilling operations, and selects and changes drill bits according to the nature of strata, using hand tools;
- participates in final works after cementing and inspecting casing integrity



Assistant Driller for Exploitation and Development Drilling of Oil and Gas Wells (first)

- runs and pulls drill rods, casing, maintains down hole equipment, maintains a supply of correct lengths of drill pipe with cleaned threads, greased and ready for use;
- performs completing with various reservoir pressure, develops and explores exploration wells;
- performs equipment safety checks on all drilling systems, and monitor all drilling equipment to ensure proper function;
- performs cementing of wells



Assistant Driller for Exploitation and Development Drilling of Oil and Gas Wells (second)

- prepares drilling rigs for drilling;
- supervises and administers operation of drilling pumps;
- participates in cementing wells;
- explores and develops exploitation wells under supervision of the first assistant driller;
- develops and explores offshore wells from offshore oil rigs as a member of the crew;
- performs equipment safety checks and maintains all drilling systems, and monitors all drilling equipment to ensure proper function, performs works to initiate inflow of oil and gas from the deposit, accelerates their inflow, abandons oil wells, installs and dismantles them

Qualifications: Extraction Machine Operator
Technician-Electric for Mining Machines and Equipment

JOB DUTIES AND TASKS

EXTRACTION MACHINE OPERATOR

- prepares, starts and stops equipment, filtering and auxiliary machines; maintains temperatures according to the process stage; regulates loading of products, solutions and solutions or mixture ratio;
- operates extraction machines;
- uses properties of semi-finished products; measures the amount of solutions and products depending on the solution concentration required;
- performs technological process of extraction, takes samples;
- monitors and regulates parameters of technological process – pressure, temperature, level, time, concentration – based on the indicators of controlling and measuring devices, analysis results;
- prevents and eliminates defects in the operation of the equipment and communications



TECHNICIAN-ELECTRIC FOR MINING MACHINES AND EQUIPMENT

- performs efficient, qualitative and timely installation, maintenance and repair of mining electrical and mechanical equipment and automatic machines;
- takes part in engineering and technical design calculations;
- ensures timely performance of technical certification and inspection of the equipment, monitors its technical condition and operational safety;
- organizes development of the measures aimed at prevention of defaults in the operation of the equipment, service life prolongation and improvement of its operational reliability;
- performs technical and economic assessment, drafts, auxiliary drawings and other design works, reads installation and electrical schemes;
- evaluates compliance of the technical characteristics of the installed mining machines and equipment and installation works with the norms and requirements of technical documents;
- ensures efficient use of labour resources, raw materials, materials, energy resources;
- monitors the fulfillment of the requirements for providing subordinated employees an access to the industrial facilities and occupational safety requirements while performing maintenance, repair, installation, commissioning and increasingly hazardous works



Qualifications: Mining Technician-Technologist in Mine Development
Mining Technician-Technologist in Mineral Processing

JOB DUTIES AND TASKS

MINING TECHNICIAN-TECHNOLOGIST IN MINE DEVELOPMENT

- takes part and organizes conduct of engineering and technological surveys and estimates;
- organizes preparatory works for mine development and mineral deposit exploration;
- supervises the regime of mine ventilation and gas content in mine atmosphere;
- organizes drilling and blasting operations, develops documents for their implementation;
- evaluates compliance of the technical characteristics of the installed mining machines and equipment and installation works with the norms and requirements of technical documents



MINING TECHNICIAN-TECHNOLOGIST IN MINERAL PROCESSING

- performs technological process of industrial processing of raw materials, ores and other minerals;
- determines and selects the optimal mode and methods of technological process of mineral processing;
- takes part in the conduct of engineering and technological estimates;
- plans and organizes mining operations;
- monitors technical and operational parameters of the basic machines and equipment;
- determines the technical condition of the technological equipment and machinery, takes part in the development of technical documents for their maintenance;
- monitors the efficiency of the use of auxiliary equipment, materials, fuel and energy resources;
- examines and monitors the qualities of raw materials, auxiliary materials, finished products;
- analyzes reasons for technological process violation, takes part in the development and implementation of mine safety programs



Qualifications: Agricultural Machinery and Equipment Mechanic
Farm Tractor Operator
Road-Building Machinery and Tractor Mechanic

JOB DUTIES AND TASKS

Agricultural Machinery and Equipment Mechanic

- maintains, repairs, overhauls, inspects and studies complex units and parts of harvesters, tractors and other farm machinery at test stands;
- inspects and diagnoses farm machinery;
- dismantles defective machines for repair;
- repairs and replaces different parts and units;
- reassembles, adjusts and lubricates such parts and units



Farm Tractor Operator

- prepares tractor and self-propelled vehicles for work;
- drives and controls tractors and self-propelled vehicles, including machines with mounted, semi-mounted and trailed implements and farm attachments;
- operates farm equipment to perform various harvest and post-harvest tasks;
- performs routine maintenance and lubricates tractor and attachments



Road-Building Machinery and Tractor Mechanic

- inspects, repairs and maintains automotive and mechanical road-building and meliorative equipment and machinery;
- repairs, reassembles and aligns different parts and units as well as replaces certain parts and units of road-building, meliorative equipment and machinery;
- studies complex units and parts of road-building and meliorative equipment and machinery at test stands



AGRICULTURAL INDUSTRY

Qualifications: Agricultural Technology Manager
Agricultural Production Manager

JOB DUTIES AND TASKS



Agricultural Technology Manager

- oversees day-to-day operations of a farm;
- coordinates better operation of farming fields, and production in crops and plants, encourages practices that improve productivity and minimize soil erosion;
- coordinates technological processes of production, storage and processing of agricultural products;
- implements agricultural product quality check;
- operates and maintains farm equipment and machinery;
- conducts marketing studies of agricultural products and performs activities to boost demand for agricultural products, performs quality improvement duties, identifies product marketing channels and supply chains;
- responsible for planning and financial analysis of farm operation, keeping farm records

Agricultural Production Manager

- oversees day-to-day operation of the structural division of the farm;
- participates in the events to ensure better operation of farming fields, equipment and other machinery;
- coordinates the use of advanced, high-input technologies and agricultural practices;
- performs operations management and checks qualities of the work performed in the structural division of the farm;
- records information such as production and farm management practices and structural division performance, justifies effectiveness of the adopted production improvement practices;
- conducts marketing studies of agricultural products and performs activities to boost demand for agricultural products, performs quality improvement duties, identifies product marketing channels and supply chains;
- supervises implementation of contractual obligations, marketing plans for agricultural products, reveals internal reserves



Qualifications: Tree Cutter
Gamekeeper
Forester

JOB DUTIES AND TASKS



TREE CUTTER

- fells trees, cuts trees into lengths for firewood, stacks wood and bushes in rick or cord lots;
- saws back-cuts, leaving sufficient sound wood to control direction of fall, selects wood for cutting, trims off tops and limbs of trees;
- maintains and repairs chainsaws and other equipment, cleaning, oiling, and greasing equipment, and sharpening equipment properly

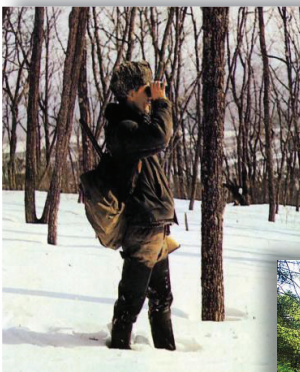


GAMEKEEPER

- supervises and coordinates activities in breeding, raising, and state protection of wild animals in a certain area of the

woodland, records number and species of animals;

- organizes shooting and hunting parties, keeps track and performs game assessment;
- manages wildlife habitats, feeds wild animals, keeps records of feeding stocks, supervises and directs their use;
- makes arrangements for individual and collective hunting, records number of hunted animals;
- consults hunters and local population on issues of forestry and wildlife legislation



FORESTER

- make arrangements for planting and growing new trees, cares for woodlands, collects wood seeds;
- monitors trees for healthy growth, detects wood infestations by insects or disease;
- directs suppression of forest fires and conducts fire-prevention programs



Qualifications: Forestry Technician
Landscape Technician

JOB DUTIES AND TASKS

FORESTRY TECHNICIAN

- responsible for implementation of all forestry activities such as planning and coordinating planting, pruning, thinning and protection of the forest crops that ensure optimal forest productivity and environmental protection and safety;
- selects and marks trees for thinning or logging;
- inspects trees and collects plant samples to locate insect and disease damage, informs relevant authorities of this;
- make arrangements for multi-purpose, sustainable and continuous use of woodlands and other wood products in a certain area of woodland;
- travels through sections of forest and supervises woodlands on a daily basis, ensures the compliance by logging companies and other forest users with forest law requirements applicable in the Republic of Belarus, other technology regulatory and legal acts, take appropriate measures to prevent recurrence of similar incidents in the future



LANDSCAPE TECHNICIAN

- under the supervision of a more qualified specialist participates in preparation of draft designs of new gardens and aesthetically appealing landscape structures;
- runs technological processes of decorative planting of gardens, yards and other areas and operates them;
- participates in creation of landscape structures;
- applies advanced technologies in landscape design and beautification, taking into consideration best national and international practices;
- checks quality of plants;
- supervises compliance with technological processes of creating landscape structures, decorative planting and cultivating new growths;
- participates in revealing reasons of getting non-standard decorative plants and flowers, prepares proposals to prevent and eliminate faults;
- assigns workloads to employees, evaluates the overall quality of work produced by the staff in general and an individual employee, instructs employees on technology requirements when performing their work and gives safety instructions to employees;
- cares for plants, shrubs, trees and other foliage in gardens;
- participates in selection of machines and equipment, materials and tools required for landscape design and architecture and oversees their operation, effective use and procedures related to the observance of environmental and safety requirements

Qualifications: Dough Brake Machine Operator
Baker
Dough

JOB DUTIES AND TASKS



Dough Brake Machine Operator

- tends a dough brake machine that kneads and cuts dough into desired texture and sizes including numerically controlled machines and cutting machines for two and more ovens;
- sets up and operates dough brake machines, including numerically controlled machines and cutting machines that separate and spread dough for the manufacture of bread, pastry, rolls and crumbs;
- follows the requirements of technical specifications and maintenance manuals for dough brake and cutting machines;
- observes and supervises technological process of dough kneading and cutting;
- applies measuring tools and metric scales

Baker

- prepares and measures ingredients, mixes, shapes and cuts dough into uniform portions using various techniques, manages the baking process;
- runs a technological process of baking bread, rolls, muffins and pastry;
- adjusts and maintains equipment, measuring tools when running a technological process of baking bread rolls, muffins and pastry;
- follows and reads technical specifications when running a technological process of baking bread rolls, muffins and pastry;
- judges the readiness of dough for baking;
- adjusts and regulates temperatures of dough kneading and baking, quality of the baked goods



Dough Maker



- prepares and measures ingredients for baking bread, rolls, muffins and pastry;
- runs a technological process of preparing dough by the sponge and dough method;
- runs a technological process of preparing wheat dough for bread and pastry cooking in dough kneading machines operating within time periods or nonstop continuous process;
- prepares dough for rich and puff pastry products and diabetic bread;
- prepares dough for rye and white rye bread with the use of different starters;
- judges the readiness a technological process of preparing dough at all technological phases;
- tends and operates technological equipmen

Qualifications: Pasteurizer Operator
Butter Maker
Whole and Sour Dairy Products Maker
Cheese Maker
Low-Temperature Machinery Technician

JOB DUTIES AND TASKS



PASTEURIZER OPERATOR

- runs a process of pasteurization and cooling of various canned foods and others packed products hermetically sealed into containers in pasteurizing machines and baths, thermostatic chambers observing relevant regimes of pasteurization and thermostatic controls;
- selects regimes of pasteurization and cooling of various canned foods and others packed products hermetically sealed into containers

BUTTER MAKER

- prepares and labels packing materials and containers for butter;
- prepares and adds cream to a manual filling butter making machine operating in periodic regimes;
- molds and packs butter;
- cleans and washes equipment composing butter systems and continuous butter making machines

WHOLE AND SOUR DAIRY PRODUCTS MAKER

- runs a process of raw milk processing at factories dispatching cooled milk to milk processing plants, canned milk plants, cheese making plants;
- runs a technological process of manufacture of pasteurized milk, sour-milk products, cottage cheese products, cheese cakes, sour cream and other products;
- accepts and evaluates quantity and quality of incoming raw materials;
- grades incoming materials by methods of production based on their quality



CHEESE MAKER

- runs a process of making various fat cheeses in baths and cheese making machines;
- cares for cheese blocks on shelves to cure cheese;
- exercises quality control of cheese maturation and defects;
- packs various types of cheese

LOW-TEMPERATURE MACHINERY TECHNICIAN

- ensures accident-free and reliable work of the equipment, its correct operation, timely and qualitative repair and maintenance;
- sets up, adjusts, calibrates and examines equipment;
- provides technical supervision over status and repair of protective devices of low-temperature machinery;
- prepares time schedules (plans) for examination, checking and repair of the equipment, prepares applications for centralized overhaul, receipt of required materials, spare parts, tools etc;
- participates in acceptance and installation of new machinery, attestation and rationalization of work places, modernization and replacement of ineffective machinery with highly productive one, mechanization of heavy manual and labour intensive processes;
- maintains records of all equipment;
- makes necessary alterations and corrections to the technical specifications in line with the decisions taken when reviewing and discussing the works performed;
- checks state and correct operation of protective devices

Qualifications: Technician-Technologist for Vegetative Raw Materials Storage and Processing
Technician-Technologist for Food Production and Public Catering Facility Organization

JOB DUTIES AND TASKS

TECHNICIAN-TECHNOLOGIST FOR VEGETATIVE RAW MATERIALS STORAGE AND PROCESSING

- participates in planning and organization of production and technological process implemented by sections, departments and organizations (enterprises) of food, flour milling and mixed feed industries;
- participates in development of technological processes of storage and processing of edible raw materials and production preparation modes;
- oversees technological processes of storage and processing of edible raw materials in line with technical specifications and technological documentation;
- makes alterations to the technological documents caused by adjustments of technological processes and production preparation modes and ensures their due approval;
- participates in technological equipment testing, experimental verification and adoption of projected technology processes;
- participates in selection and determination of the arrangement of technological equipment and tools within relative departments;
- participates in introduction of measures aimed at comprehensive mechanization and automation of production processes, equipment modernization;
- monitors quality and safety of incoming edible raw materials, containers, packages and packaging materials, finished goods;
- supervises adherence to technological procedures of storage and processing of edible raw materials;
- participates in detecting causes of defects and incidents of non-standard product release, making proposals to prevent and eliminate errors and defects revealed

TECHNICIAN-TECHNOLOGIST FOR FOOD PRODUCTION AND PUBLIC CATERING FACILITY ORGANIZATION

- plans, organizes and directs trading and production activities;
- organizes a technological process of cooking and production of catering products and provision of customer services in compliance with the requirements of normative, technological and technical documentation;
- oversees development and introduction of new products to increase raw material efficiency and expand services provided to customers;
- participates in selection and determination of the arrangement of technological equipment and tools within relative departments, monitors observance of environment safety regulations;
- monitors quality and safety of incoming vegetative raw materials, monitors their conformity to sanitary-and-hygienic norms and rules;
- monitors the quality of services provided to customers;
- monitors employees' adherence to sanitary-and-hygienic norms, occupational and fire safety rules, resource saving and environment protection requirements;
- participates in planning of production and economic activities of public catering facilities;
- compiles and keeps financial records with the use of computer tools;
- examines demand for the services provided to consumers by public catering facilities;
- communicates and consults employees, directs, manages, supervises, and coordinates the activities and operations of employees



Qualifications: Food Production Technician
Plant and Animal-Based Raw Material Processing Technician

JOB DUTIES AND TASKS

Food Production Technician

- participates in planning and organization of production and technological process implemented by sections, departments and organizations (enterprises) of food processing industry;
- participates in development of technological processes of storage and processing of food products and production preparation modes;
- organizes and oversees technological processes of food production in line with technical specifications and technological documentation;
- participates in development of new products and their supply to production sites to increase raw material efficiency and expand services provided to customers;
- participates in introduction of progressive food production technologies in line with national and international best practices;
- participates in design of engineering schemes for newly constructed and reconstructed food processing enterprises;
- participates in testing of food processing equipment, experimental verification and adoption of projected technology processes and production preparation modes;
- participates in selection and determination of the arrangement of technological equipment and tools within relative departments, controls their proper operation and efficient application;
- participates in equipment of the production departments with laboratory and metrological control systems;
- monitors quality and safety of incoming raw materials, food products, semi-finished products, containers, packages and auxiliary materials, finished goods in line with sanitary regulations and standards;
- supervises adherence to technology procedures of food processing to insure its quality and safety

Plant and Animal-Based Raw Material Processing Technician

- participates in planning and organization of production and technological process implemented by sections, departments and organizations (enterprises) of fat and oil processing industry;
- participates in development of technological processes and modes of production of fat and oil products;
- directs and oversees technological processes of edible plant and animal-based raw material processing in line with technical specifications and technological documentation;
- participates in development and supply of fat and oil products to production sites;
- participates in introduction of progressive technologies of fat and oil processing in line with national and international best practices;
- participates in selection and determination of the arrangement of technological equipment and tools within relative departments, controls their proper operation and efficient application;
- participates in equipment of the production departments with laboratory and metrological control systems;
- monitors quality and safety of incoming raw materials, packaging materials, closures, containers, packages and finished products in line with sanitary regulations and standards;
- participates in testing of technological equipment;
- supervises adherence to technological procedures of food processing;
- participates in detecting causes of defects and incidents of non-standard product release, making proposals to prevent and eliminate errors and defects revealed;
- determines arrangement of employees involved in production, instructs employees on how to perform technological processes of fat and oil processing and occupational safety regulations



Qualifications: Pattern Cutter Tailor Clothing Cutter Sewer Embroiderer

JOB DUTIES AND TASKS

PATTERN CUTTER

- takes patterns and cuts out material for sewing and revamping, mending of underwear and shapewear;
- cuts out and recuts pattern pieces;
- uses instruments and other cutting tools to cut out various pieces of underwear, bedwear and shapewear garments;
- understands and pays attention to textile characteristics while cutting out material for sewing, cuts fabric and textile paying close attention to its economical use;
- designs pattern pieces and layouts



Tailor

- creates models and samples of clothing, alters, repairs, presses and irons garment;
- sews clothing; uses necessary types of seams;
- uses relevant equipment and machinery for sewing, repair and alteration of clothing;
- participates in introduction of new models of clothing into production;
- uses relevant technological specifications and documentation when performing work

Clothing Cutter

- uses machines or hands to cut pattern pieces out of fabric, knitted fabric into pattern pieces for coats, suits and dresses, underwear, shapewear and uniform clothing;
- inspects fabric for defects and trims cutting defects;
- ensures that pattern pieces are marked for fabric weave lines, coded to specifications, reproduced clearly, and assembled in specified order;
- determines types of fabric defects and takes them into consideration when adjusting, cutting pieces according to the print pattern;
- uses cutting tools and equipment



SEWER

- uses sewing machines or hands to sew clothing from different fabrics and textiles;
- uses different equipment, tool and machinery to sew clothing from different fabrics and textiles;
- corrects minor equipment malfunctions;
- uses relevant technological specifications and documentation when sewing clothing from different fabrics and textiles

Embroiderer

- embroiders ornamental designs and decorative prints by hand or machines over stamped or stenciled designs on fabric material utilizing knowledge of various stitches that may be required;
- embroiders intricate patterns and designs on fabric;
- embroiders by hand or machines decorative simple or multi colour prints and designs; cuts out applications;
- embroiders ornamental designs on garments; selects materials for embroidery
- operates embroidery machines; regulates machine settings;
- prepares tools, materials, fabrics for embroidery

CLOTHING INDUSTRY

Qualifications: Clothing Pressor
Garment Technician-Technologist
Fashion Designer

JOB DUTIES AND TASKS



CLOTHING PRESSOR

- steam irons tailored and knitted clothing by different types of equipment;
- glues stitches, cements together pieces of clothing with hot-melt plastic glue rod, edges, applications with details, tailored products;
- reads and uses technical specifications and technological documentation regulating the performance of such works

GARMENT TECHNICIAN-TECHNOLOGIST

- develops technological processes and modes of garment manufacturing;
- determines step-by-step process for garment manufacturing;
- writes technical specifications and technological documentation for garment manufacturing;
- controls operations of garment manufacturing;
- participates in patent examinations, introduction of technological processes at garment manufacturing plants and departments, detecting causes of defects in garment and sewing defects, making proposals to prevent and eliminate such defects in future;
- participates in development of technically justified time limits (rates) of manufacture and measures contributing to reduction of labour intensity of garment manufacturing;
- evaluates economic efficiency of the projected technological garment manufacturing processes;
- participates in testing garment manufacturing equipment, experimental verification and adoption of the projected technological processes;
- participates in planning and analyzing manufacturing performance



FASHION DESIGNER

- designs sketches, patterns and layouts of new fashionable clothing;
- sketches rough and detailed drawings of apparel and writes specifications describing factors, such as color scheme, construction, and type of material to be used;
- draws pattern for article designed, using measuring and drawing instruments;
- constructs samples of highly complicated models of clothing;
- justifies economic efficiency of the designed clothing;
- writes technical specifications for new models of clothing;
- confers with sales and management executives and coordinates activities of workers who draw and cut patterns and construct garments;
- examines sample garment on and off model and modifies design as necessary to achieve desired effect;
- supervises process of fabrication of garment to ensure its compliance with the sketch and model construction pattern;
- attend fashions and fabric shows to observe new fashions and materials, participates in the activities of artistic and technical board, selection of models at exhibitions, shows, conferences

Qualifications: Knitter
 Looper
 Technologist in Bast-Fibered Product Preprocessing

JOB DUTIES AND TASKS

KNITTER

- knits woven garments and clothes, observes technology of knitting by spokes and machinery of various forms and classes with use of various knitting techniques;
- determines the procedure of knitting of woven clothing;
- observes woven cloth to adjust woven cloth thickness and tension;
- inspects quality of material while preparing wool, yarn for weaving, knitting, or other processing, replaces coils, bobbins, reels;
- sets up, operates and properly maintains machines that knit, loop, weave, or draw in textiles



LOOPER

- sets up, operates and properly maintains looping machines: threads yarn, thread, and fabric through guides, needles, and rollers of machines, replaces reels;
- mends broken thread by hand and rethreads if necessary, prepares clothing items for looping;
- applies techniques for looping footwear and woven clothing, their rejection

TECHNOLOGIST IN BAST-FIBERED PRODUCT PREPROCESSING

- develops technological processes of flax preprocessing;
- participates in development of technical specifications and technological documentation for flax fiber manufacturing, makes alterations to the technological documents caused by adjustments of technological processes and production preparation modes and ensures their due approval;
- participates in technological testing of flax preprocessing equipment, experimental verification and adoption of projected technology processes;
- monitors quality and participates in introduction of progressive technologies of flax preprocessing;
- supervises operations of flax fiber manufacturing to ensure implementation of the planned targets pertaining to the quality of the manufactured products, increase in labour productivity, energy and raw material efficient use;
- participates in development of technically justified time limits (rates) of manufacture and measures contributing to reduction of labour intensity of flax fiber manufacturing;
- evaluates economic efficiency of the projected technological garment manufacturing processes, planning and analysis of manufacturing performance results



LEATHER INDUSTRY

Qualifications: Product, Semi-Product and Material Supervisor
Leather Goods Maker
Material Cutter
Sewer
Leather Garment Technician

JOB DUTIES AND TASKS

PRODUCT, SEMI-PRODUCT AND MATERIAL SUPERVISOR

- inspects materials and finished products to identify causes of errors and defects and methods of their correction;
- keeps and maintains records and documentation on the items returned for correction by defects, material manufacturers and finished products



LEATHER GOODS MAKER

- thins edges of leather and shapes leather parts by hand and machine using different methods, glues and sews parts together;
- understands and pays attention to the characteristics of the material and semi-finished products, technical documentation requirements when making leather products

MATERIAL CUTTER

- lays and arranges material to ensure its economical cutting;
- selects finishing materials according to the requirements;
- cuts out parts following patterns or outlines, using knives, shears, scissors, or machine presses;
- sharpens and mends cutting knives;
- marks pieces in conformity with their number, style, size



SEWER

- constructs, decorates, or repairs leather products according to specifications, using sewing machines, needles and thread, leather lacing, glue, clamps, hand tools, and/or rivets;
- operates and sets up universal or special sewing-machines to make leather sports, saddlery and human outfit products according to technical specifications

LEATHER GARMENT TECHNICIAN

- develops technological processes and modes of footwear and leatherwear manufacturing;
- writes technical specifications and technological documentation for footwear and leatherwear manufacturing;
- participates in introduction of technological processes at footwear and leatherwear manufacturing plants and departments;
- participates in justification of economic efficiency of new machinery and progressive technology introduction, innovative proposals and inventions in footwear and leatherwear industry;
- sets up, adjusts, aligns and verifies equipment and footwear and leatherwear manufacturing systems, inspects their correct operation;
- participates in experiments and tests, connection of devices, registration of necessary characteristics and parameters and processes and handles the obtained results



Qualifications: Laster
Shoe Sewer
Shoe Mender
Footwear and Leatherwear Designer

JOB DUTIES AND TASKS

LASTER

- places and tacks insole on last; fixes last in holding jig; pulls upper on to last by machine to give it required shape; checks alignment of toe and heel of upper according to technical specifications;
- sets up and adjusts machines



SHOE SEWER

- places shoes on lasts to remove soles and heels, using knives and/or pliers.
- cements, nails or sews soles and heels to shoes;
- dresses and otherwise finishes boots or shoes, as by trimming the edges of new soles and heels to the shoe shape;
- determines types of defects in products, identifies their causes and methods of correction



SHOE MENDER

- repairs or replaces soles, heels, and other parts of footwear, using sewing, buffing and other shoe repair machines, materials, and equipment;
- attaches insoles to shoe lasts, affixes shoe uppers, and applies heels and outsoles, nails heel and toe cleats onto shoes

FOOTWEAR AND LEATHERWEAR DESIGNER

- designs sketches, patterns and layouts of new models of footwear and leatherwear products;
- writes specifications and passports describing factors, such as color scheme, construction, and type of material and accessories to be used;
- fabricates a basic model with recommendations on how to develop on its basis a series of footwear and leatherwear products;
- develops a set of different sample sizes of footwear products;
- constructs samples of highly complicated models of footwear and leatherwear products;
- inspects accuracy of manufacture of samples for cutting torches and punchers;
- justifies economic efficiency of footwear and leatherwear design;
- writes technical specifications for new models;
- coordinates the development of the designed constructions with fashion designers, technologists, sales and management executives (customers)



Qualifications: Woodworking Machine Operator
Wood Technician-Technologist
Wicker Furniture Maker

JOB DUTIES AND TASKS

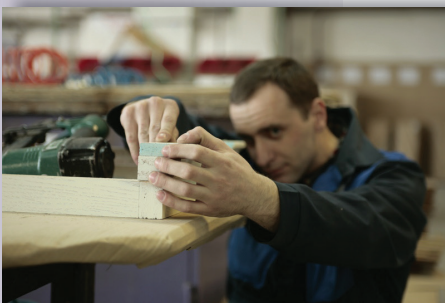


Woodworking Machine Operator

- cuts and trims wood to specified dimensions, examines logs or lumber in order to plan the best cuts by circular saws and multiple-blade sawing machines;
- inspects saws to make sure that they are in proper working condition, determines when saw blades need replacing;
- trims lumber, veneer and wood;
- cuts veneer sheets and glue-coated sheets by multi-spindle machines; sheet materials by semi-automatic and automatic machines; glue-coated sheets in correct order to form pack of

required width, length and size; wood-fiber, chipwood, crib sheets and plywood by circular sizing machines of various types according to the requirements of standards and specifications;

- cuts planks and boards to standard lengths and straightens and squares their edges and ends; examines planks and boards for defects and removes faulty pieces



Wood Technician-Technologist

- within the limits of his/her competence designs the layout of woodworking sections and sites, writes technical specifications and technological documentation;
- develops and organizes technological process of converting wood into commodities of the required quality;
- evaluates and improves effectiveness of industrial equipment and production processes;
- determines volumes and types of woodworking wastes, makes plans about recycling;

- takes measures and studies methods of curing wood to determine best and most economical procedure;
- assigns specific tasks to workers and directs workers in task performance;
- controls quality of raw materials, materials and finished products, identifies causes of defects in product manufacture, develops and enhance technical loss prevention measures;
- keeps records and maintains documentation

Wicker Furniture Maker

- prepares and selects materials to match colour, texture, thickness and length;
- cuts osier and makes tapes (slices);
- applies coats of stain, sealer, filler, lacquer, by hand or electrified tools;
- makes wicker furniture with decorative accessories, including their combination with ceramics, wood and other materials;
- repairs minor defects and restores wicker products;
- creates original wicker products following national traditions



Qualifications: Enchaser
Wood Carver
Decorative Painter on Wood
Straw Artware Maker

JOB DUTIES AND TASKS



ENCHASER

- selects, prepares wood and wood materials to be processed and applied with enchased furniture products;
- processes wood by electric cutting, slicing, drilling and grinding tools;
- enchases wood, metal, bone elements with different materials using already developed patterns;
- glues enchased parts and elements together;
- repairs and restores enchased furniture products



Wood CARVER

- selects and arranges wood to make sure that they match in quality and colour;
- clamps furniture part in vise and roughs out design freehand or by cutting along lines marked on wood, using chisel and mallet, jigsaw, and router;
- carves ornamental designs into wooden furniture parts, using handtools and woodworking machines;
- transfers ornamental design to wooden furniture;
- cuts, trims, or touches up roughed out design, using handtools to finish design;
- repairs and restores carved products;
- creates original products following national traditions

DECORATIVE PAINTER ON Wood

- designs and paints decorations that create unique-looking, special pieces of wood of different cultures and traditions including traditions of the national crafts of Belarus;
- burns out different decorative images on wooden elements and figures;
- mixes colours, makes cliches;
- applies, adjusts burning out devices, tools and electric equipment, selects accessories and tools;
- uses computer technologies to create drawings, prints (ornaments)



STRAW ARTWARE MAKER

- preprocesses and prepares materials (straw stalk) for work (bleaching, dyeing, storage, splitting, strengthening of straw);
- sorts straws according to its length and thickness, compiles them in small bunches convenient for storage;
- creates decorative artware from straw using various techniques and methods;
- creates straws artworks following national traditions



Qualifications: Absorption Operator
Gas Separating System Operator
Polymerization Operator
Fermentation Operator
Universal Machine Operator for Chemical and Pharmaceutical Product Manufacturing

JOB DUTIES AND TASKS



Absorption Operator

- separates dust and dirt from gases and loads them into absorbers;
- prepares absorbing liquids of certain structure and concentration;
- performs a technological process of absorption;
- supervises and regulates parameters of absorption;
- maintains log of instrument readings, test results, and shift production, takes samples for analysis;
- maintains equipment, controlling and measuring tools, armature, communications, inspects equipment to detect and correct defects

and malfunctions;

- transfers products to warehouse, pumps solution between equipment and storage tanks or tank cars, dispatches them to consumers

Gas Separating System Operator



- receives gas-liquid mixture;
- operates system of preliminary cooling, gas separation chamber when method of deep cooling;
- adjusts technological process of gas separation, takes samples for analysis,
- calculates and evaluates consumption of raw materials, manufactured products;
- inspects equipment to detect and correct defects and malfunctions

Polymerization Operator

- receives and prepares raw materials, solutions, catalysts, prepares doses of raw materials;
- calculates and evaluates consumption of raw materials;
- prepares equipment for work;
- takes samples for analysis, makes analysis and calculations;
- keeps records of the output of the ready product;
- maintains equipment



Fermentation Operator

- performs a technological process of fermentation for manufacture of antibiotics, vitamins and other medicines obtained by a method of biosynthesis;
- maintains equipment, applies controlling and measuring tools and equipment;
- takes samples for analysis

Universal Machine Operator for Chemical and Pharmaceutical Product Manufacturing

- performs a technologically simple process of manufacturing of chemical and pharmaceutical products;
- reads technological schemes and manufacture regulations, adjusts parameters of technological process when performing work

Qualifications: Twisting and Drawing Out Machine Operator (Chemical Fiber Manufacture)
Forming, Drawing Out and Texturing Machine Operator (Chemical Fiber Manufacture)
Fiberglass Machine Operator
Twisting Machine Operator (Fiberglass Manufacture)

JOB DUTIES AND TASKS

Twisting and Drawing Out Machine Operator (Chemical Fiber Manufacture)

- performs a technological process of drawing out, twisting, winding and texturing of fibers into threads by machines of various systems;
- observes operations to detect defects of chemical fibers and threads, prevents and corrects them;
- stops machines when specified amount of products has been produced, removes spindles from machines and bobbins from spindles;
- sets up, operates and maintains the machines



Forming, Drawing Out and Texturing Machine Operator (Chemical Fiber Manufacture)

- performs separate stages of a continuous technological process of synthetic thread manufacturing by combined forming, drawing out, texturing and winding machine;
- observes and inspects operations of forming, drawing out, texturing and winding;
- inspects equipment, structures, or materials to identify causes of smudges, thread breakages and filter blockage, corrects problems;
- stops spinning machines when specified amount of products has been produced;
- repairs minor malfunctions in the machines

Fiberglass Machine Operator

- performs a technological process of thermal and chemical processing of fiberglass materials;
- prepares a chemical solution according to the formula, determines its concentration prior and after processing;
- operates machines for test runs to verify adjustments and to obtain product samples;
- processes flat glass by machines and performs operations of thermal and chemical fiberglass processing according to instructions from supervisor



Twisting Machine Operator (Fiberglass Manufacture)

- performs a technological process of chemical fiber threads by winding and twisting machines;
- starts machines, monitors operation, and makes adjustments as needed;
- determines sizes of the products, selects size and direction of winding;
- observes operations to detect defects, malfunctions, or supply shortages;
- tends and operates winding and twisting machines



Qualifications: Continuous Strand Fiber-Glass Machine Operator
Fiberglass Unwinding Machine
Glass Blower
Glass and Glassware Grinder
Compressor Operator
Pump Operator

JOB DUTIES AND TASKS

CONTINUOUS STRAND FIBER-GLASS MACHINE OPERATOR

- performs a technological process of manufacturing of continuous sheets of various fiberglass insulation materials, as well as silica-filled, metal coated and high modulus threads by two-phase or single phase methods;
- patrols work area and observes range units, temperature gauge, and flow of material through range to detect irregular operation of machine and variations from standards, examines matted sheets for thin spots and foreign matter;
- uses tools or performs visual inspection of the quality of products



FIBERGLASS UNWINDING MACHINE OPERATOR

- unwinds fiberglass threads from the bobbins and performs the first twist by unwinding machines;
- installs bobbins and threads bobbins (tubes), repairs damaged threads by gluing, replaces empty bobbins, cones on spindles;
- performs visual identification or by using different tools of types of defects in threads and unwinding packages, detects causes of their occurrence and corrects them;
- removes and delivers finished products;
- collects and delivers wastes



GLASS BLOWER

- blows glass sculptures and artworks of various shapes and designs;
- identifies types of defects and takes measures to prevent and correct them

GLASS AND GLASSWARE GRINDER

- removes rough edges and surface convexities from formed glassware using various methods and techniques;
- removes defects, takes measures to prevent them;
- uses diamond carving to carve a wide range of glassware and mirrors into intricate shapes and decorative patterns

COMPRESSOR OPERATOR

- starts and stops basic technological equipment following instructions given by production supervisors of higher qualification;
- operates compressor engines, pumps and auxiliary equipment in a way that allows for appropriate flows of gas;
- adjusts controls and valves, regulates pressures and monitors meters and other devices

PUMP OPERATOR

- tends, controls, or operates power-driven, stationary, or portable pumps and manifold systems to transfer gases, oil, other liquids to from various vessels and processes;
- cleans, lubricates, and repairs pumps and vessels, using hand tools and equipment, turns valves and starts pumps to start or regulate flows of substances;
- collects and delivers sample solutions for laboratory analysis;
- monitors gauges and flow meters and inspects equipment to ensure that tank levels, temperatures, chemical amounts, and pressure are at specified levels, reporting abnormalities as necessary;
- prepares and starts or stops electric engines

Qualifications: Machine Operator
 Technician-Mechanic for Chemical and Construction Materials Machinery
 Technician-Technologist for Manufacture of Non-Organic Substances,
 Materials and Products

JOB DUTIES AND TASKS

MACHINE OPERATOR

- tends, controls, and maintains power-driven machines, pumps and manifold ventilating and heating systems under supervision of a machine operator of a higher qualification;
- runs and regulates technological processes implemented by heating and refinery systems for oil and other products under supervision of a machine operator of a higher qualification;
- grades petroleum coke base on its fractional structure by coking machines under supervision of a machine operator of a higher qualification;
- maintains controlling devices and automatics

TECHNICIAN-MECHANIC FOR CHEMICAL AND CONSTRUCTION MATERIALS MACHINERY

- inspects, maintains, disassembles, repairs, assembles and tests units, devices, machines and machinery;
- installs, tests, sets up and adjusts equipment, units and machines and delivers them after repair;
- detects and corrects defects in the equipment operation and when inspecting during repairing;
- analyzes causes of defects in the manufactured products and develops prevention and correction measures;
- ensures accident-free and reliable operation of all types of equipment, its correct operation, timely and qualitative maintenance, repair and modernization;
- supervises conditions of operation of equipment, separate parts and units to detect causes of their premature deterioration, analyses causes of equipment idle time due to technical state of the equipment;
- develops and introduces progressive methods of repair and restoration of the units and parts of the machinery, as well as measures to prolong service life of the equipment, reduce its idle time and increase its shift use, prevent accidents and occupational injuries, decrease labour intensity and cost of the repair, improve its quality;
- oversees accuracy of the equipment and machinery operation, develops technical operation and maintenance manuals, service and repair manuals;
- participates in introduction of new technological processes, new equipment and tools testing and adoption

TECHNICIAN-TECHNOLOGIST FOR MANUFACTURE OF NON-ORGANIC SUBSTANCES, MATERIALS AND PRODUCTS

- performs a technological process of manufacture of non-organic substances and mineral fertilizers, industrial processing of raw materials, ores and other types of minerals;
- plans and organizes performance of industrial operations;
- monitors operational performance parameters of the basic equipment and machinery;
- ensures manufacture of the required volumes of products of the particular range;
- tests and controls quality of raw materials, auxiliary materials, finished products;
- analyzes causes of technological process violations, errors and defects in products, participates in development and implementation of prevention measures;
- prepares statistical data required for the analysis and planning of the manufacturing activities of the structural division

PLASTICS AND RUBBER INDUSTRY

Qualifications: Plastic Molder
Extruder Operator

JOB DUTIES AND TASKS

Plastic Molder

- operates and sets up blow molding machine to mold plastic products according to specifications;
- manufactures molding of different products under heat and pressure by plastic blow molding machine, performs hand molding and casting of plastic artware;
- controls quality of the finished products;
- removes products from mold and cleans and reloads mold



EXTRUDER OPERATOR

- performs a technological process of extrusion by extruders and extrusion rotor machines of plastic products of various complexity from polyvinylchloride, polystyrene, polyethylene, etc. materials according to technological specifications;
- removes defects in manufacture of plastic parts and products;
- controls quality of the finished products;
- removes, weighs prescribed amounts of material and finished

product, marks to ensure specifications are maintained

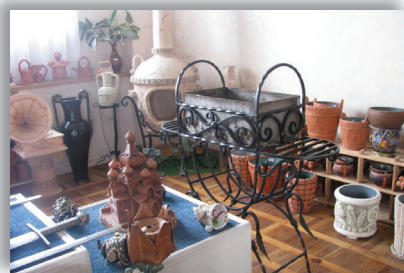
OTHER NON-METAL MINERAL INDUSTRY

Qualification: Pottery Maker

JOB DUTIES AND TASKS

POTTERY MAKER

- prepares ceramics clay for use;
- shapes the clay into the desired shape using various tools, including pottery wheels, molds and carving tools;
- manufactures models and plaster moulds;
- manufactures pottery ware with hands and pottery machines, pottery plaster molds to process clay in manufacture of ceramic;
- performs artwork painting and carving of pottery;
- puts glazing to make a finishing touch on a ceramic art piece;
- fires pottery;
- manufactures ceramic art piece that match national traditions



Qualifications: Gas Welder Electric/Gas Welder
Manual Welder Machine Fitter/Assembler

JOB DUTIES AND TASKS

GAS WELDER

- welds nonferrous metal parts and components, using gas welding equipment in flat, vertical, or overhead positions;
- examines workpieces for defects and measure workpieces with straightedges or templates to ensure conformance with specifications;
- corrects defects of welded seams;
- selects and installs torches, torch tips, filler rods, and flux, according to welding chart specifications or types and thicknesses of metals;
- welds separately or in combination, using aluminum, stainless steel, cast iron, and other alloys, cuts, contours and bevels metal plates and structural shapes to dimensions as specified by blueprints, layouts, work orders, and templates

ELECTRIC/GAS WELDER

- operates manual, automatic or semi-automatic welding equipment to fuse ferrous and nonferrous metal segments, using processes such as gas tungsten arc, gas metal arc, flux-cored arc, plasma arc, shielded metal arc, resistance welding, and submerged arc welding;
- performs conventional oxygen plasma and air plasma arc cutting and plasma shape cutting of metals and components of various complexity from various types of steel, nonferrous metals and alloys based on markings using hand scrapers or power chippers, portable grinders, or arc-cutting equipment;
- detects faulty operation of equipment or defective materials, corrects defects of welded seams and prevents their occurrence;
- operates manual or semi-automatic welding equipment to fuse metal segments, using processes such as gas tungsten arc, gas metal arc, and flux-cored arc, plasma arc, and shielded metal arc, resistance welding, and submerged arc welding

MANUAL WELDER

- examines parts to be welded to determine best method to use, lays out, positions, aligns and secures parts and assemblies prior to assembly and welding, using straightedges, combination squares, calipers, and rulers;
- performs manual arc and plasma welding of parts, units and structures from carbonaceous steels, nonferrous metals and alloys in flat, vertical, or overhead positions;
- examines weld visually and rectifies any defects

MACHINE FITTER/ASSEMBLER

- fits and assembles fabricated parts and/or subassemblies in the manufacture of machinery, engines and other metal apparatus, removes small quantities of metal, using hand files or portable grinders, to clean parts or to produce close fit between parts;
- assembles, adjusts and tests machines, equipment, and their subassemblies, corrects defects revealed when assembling and machines, equipment, and their subassemblies;
- performs static and dynamic balancing of machines and their parts and components by special balancing machines;
- aligns components, and bolts, screws, or rivets them together, using handtools or portable powered tools;
- bends and installs pipe for hydraulic systems;
- operates lifting and transporting equipment

Qualifications: Mechanic/Technician
Computer Numerically Controlled Machine Operator
Universal Machine Operator
Mechatronics Engineer

JOB DUTIES AND TASKS

Mechanic/Technician

- chisels, files, scrapes and does other supplementary tooling and adjustment to ensure correct fit;
- disassembles, repairs, assembles and tests subassemblies and components of machines and equipment of different complexity according to their technical specifications;
- services, repairs, aligns, adjust equipment, machines, machinery and delivers them after repair;
- manufactures assembly repair tools of different complexity;
- performs loading, unloading using lifting and transporting machines;
- repairs lining equipment and equipment manufactured from protective materials and ferrosilicon

Computer Numerically Controlled Machine Operator

- sets up and operates numerically controlled machine to cut, shape, or form metal workpieces according to specifications;
- modifies cutting programs to account for problems encountered during operation;
- reviews setup sheet and specifications to determine setup procedure;
- listens and observes machines during operation to detect defects in operation of the machine and control systems;
- mounts, installs, aligns and secures tools, attachments, fixtures, and workpieces on machines;
- attaches and adjusts fixture to machine;
- ensures consistent accuracy of every component manufacturing;
- reads data from magnetic tape files and punched cards

Universal Machine Operator

- runs turning, milling, drilling, grinding machines using various cutting tools and universal fixtures;
- cuts external and internal screw threads by turning and drilling machines;
- mills open and semi-open surfaces of various configurations and interfaces, carvings, spirals, gear wheel teeth and strips;
- grinds and ruffles surfaces by grinding and riffling machine;
- installs large parts of difficult configuration requiring combined fitting and accurate adjustment in various positions;
- applies complex controlling and measuring tools and equipment;
- reads specifications when processing parts by machines

Mechatronics Engineer

- installs, commissions, dismantles, conserves and packs manufacturing equipment; mechatronic modules and systems, automated complexes;
- sets up, adjusts, tests manufacturing equipment, mechatronic modules and systems, automated complexes, services and maintains their working order;
- diagnoses and repairs manufacturing equipment, mechatronic modules and systems, automated complexes, analyzes their operational reliability;
- programs elements of mechatronic systems, sets up programs for controlling CNC equipment;
- prepares and operates systems of automation of manufacturing processes;
- participates in introduction of serial models of new machines;
- makes requests and orders for components and semi-finished products;
- designs mechatronics components for computer-controlled products

Qualifications: Turner
Milling Machine Operator
Machine Setter
Computer Numerical Control Machine and Manipulator Setter

JOB DUTIES AND TASKS



TURNER

- responsible for manufacturing complex parts using universal machines;
- studies blueprints, layouts or charts, and job orders for information on specifications and tooling instructions, selects cutting tools and tooling instructions, according to written specifications or knowledge of metal properties and shop mathematics;
- adjusts machine controls and change tool settings in order to keep dimensions within specified tolerances;
- sets up, operates, or tends lathe and turning machines;
- positions, secures and aligns cutting tools in toolholders on machines, using hand tools, and verifies their positions with measuring instruments, replaces worn tools and sharpens dull cutting tools and dies using bench grinders or cutter-grinding machines;
- reads and writes technical specifications when performing turning works;
- manufactures parts using method of the combined plasma-machining

MILLING MACHINE OPERATOR

- operates horizontal and vertical milling and special machines;
- performs simultaneous machining of several parts or simultaneous machining of all sides of one part using a set of special mills;
- observes milling or planning machine operation in two dimensions and adjusts controls to ensure conformance with specified tolerances;
- studies blueprints, layouts, sketches and technical specifications to perform milling operations;
- calculates elements of gear wheels to mill gear wheels teeth

MACHINE SETTER

- sets up for production runs, measures product to verify machine precision and adjusts special manufacturing equipment with complex systems, schemes and switches;
- uses controlling and measuring tools and equipment to set up and adjust special manufacturing machines;
- determines optimal and reliable settings and modes of equipment operation;
- maintains and inspects machines, aligns and replaces separate units, systems, cascades and modules, records defects in defect logs;
- checks, tests and starts repaired equipment;
- calculates technical parameters of gears, gear wheels etc.;
- adheres to rules of waste collection, management, treatment, storage and disposal when repairing machines and equipment

COMPUTER NUMERICAL CONTROL MACHINE AND MANIPULATOR SETTER

- makes calculations related to adjustment, control and start of CNC machines;
- makes idle-speed and on-operation adjustments of mechanical and electromechanical devices and systems of CNC machines used for processing complex parts;
- adjusts master plates;
- installs different attachments with their alignment in different dimension;
- adjusts and sets up components of CNC industrial manipulators (robots);
- adjusts and sets up equipment of block panel systems "Machine-robot" and automated flexible manufacturing lines;
- calculates and keeps records of the idle time of the machines;
- takes the adjusted machine to an operator;
- instructs CNC machine operator

Qualifications: Machine Manufacturing Technician
Welding Technician

JOB DUTIES AND TASKS

MACHINE MANUFACTURING TECHNICIAN

- participates in development of manufacturing processes;
- participates in introduction of new manufacturing processes, new manufacturing equipment and tooling testing and introduction;
- compiles and writes technical specifications and technological documentation required for manufacturing processes to be compliant with applicable normative documents and standards;
- determines technically justified time norms for designed manufacturing processes;
- prepares initial data to check equipment accuracy required for manufacturing process and according to passport data;
- writes CNC programs to machine parts using computer numerically controlled machines of various types;
- develops technical assignments for manufacturing equipment and special machinery design;
- determines material usage norms per one unit of part or operation: material, tool, fuel, energy consumption norms, evaluates economic efficiency of the designed manufacturing processes;
- makes changes to manufacturing documentation due to updates in technological processes and manufacture modes, their approval by enterprise divisions

WELDING TECHNICIAN

- participates in development of technological processes of welded structure and welding machine manufacture;
- makes changes to manufacturing documentation due to updates in technological processes and modes of manufacture;
- inspects welded joints and conducts tests to ensure welds meet company standards, national code requirements, and customer job specifications;
- determines technically justified time norms for designed manufacturing processes;
- participates in patent examinations and determination of design parameters for machines and equipment;
- develops technical assignments for manufacturing equipment and special machinery design;
- evaluates quality of welds, determines material, tool, fuel, energy consumption norms;
- inspects equipment parameters for manufacturing accuracy;
- records inspection, test and planning results and prepares and submits reports to welding engineering personnel, evaluates data and conducts experiments to develop application of new equipment or improved techniques, procedures, or practices;
- prepares initial data to check equipment accuracy required for manufacturing process and according to passport data;
- calculates technical parameters and maintains technical documentation;
- determines material usage norms per one unit of part or operation: material, tool, fuel, energy consumption norms, evaluates economic efficiency of the designed manufacturing processes;
- ensures rational use of raw materials, materials, energy;
- prepares work assignments, instructs workers on their duties

Qualifications: CNC Machine and Manipulator Setting and Adjustment Technician (Manufacturing)
Metalworking Machinery Technician/Mechanic
Machinery Setter

JOB DUTIES AND TASKS

CNC Machine and Manipulator Setting and Adjustment Technician (Manufacturing)

- develops technological processes of manufacture of standard parts of machinery;
- participates in testing and adoption of the designed manufacturing processes;
- participates in conduct of tests of manufacturing equipment;
- performs necessary calculations related to manufacturing process design;
- makes changes to manufacturing documentation due to updates in technological processes and modes of manufacture;
- identifies causes of defects in products;
- determines technically justified time norms for designed manufacturing processes;
- inspects manufacturing machines and tools for accuracy;
- writes CNC programs to machine parts using computer numerically controlled machines of various types;
- sets up and performs corrective adjustments of computer numerically controlled machines and equipment;
- sets up and performs corrective adjustments of computer numerically controlled manipulators (manufacturing robots);
- selects technical settings, adjustments and corrective actions to align manufacturing machinery and equipment

Metalworking Machinery Technician/Mechanic

- develops technological processes of manufacture and assembly of standard parts and units of metalworking machinery and equipment;
- participates in design and calculation of standard units and systems of metalworking machinery and equipment;
- participates in conduct of metalworking machinery acceptance testing;
- keeps machinery in working order;
- organizes and supervises repair and maintenance of metalworking machinery;
- organizes and supervises transportation of machinery, its installation, commissioning and decommissioning;
- identifies defects in machinery and corrects them;
- participates in commissioning of different metalworking machinery and systems;
- inspects compliance of technical characteristics of the installed metalworking machinery and equipment and installation works with technical and design documentation;
- performs calculations to evaluate needs of the enterprise in manufacturing machinery and tools;
- determines material usage norms and tools required at workplace;
- evaluates costs of machinery repair and maintenance;
- monitors manufacturing processes, materials, products

Machinery Setter

- operates, repairs and updates electrical equipment and networks;
- participates in determination of electrical energy needs and development of norms for its consumption;
- participates in development of schedules of inspection, check and repair of electrical equipment and machinery of manufacturing enterprises and electrical networks;
- participates in testing and acceptance of electrical equipment and networks into manufacturing operation;
- attaches tools, registers parameters and processes obtained results;
- participates in justification of economic efficiency of progressive repair technologies and electronic equipment testing;
- calculates electrical network parameters, selects conductors, protective and switching equipment in electrical networks;
- repairs and updates electricity installations of manufacturing enterprises;
- takes actions to protect environment and ensure energy saving at enterprise

Qualification: Technician. CNC Machine and Manipulator Setting and Adjustment
Foreman (Education and Manufacturing)

JOB DUTIES AND TASKS

TECHNICIAN. CNC MACHINE AND MANIPULATOR SETTING AND ADJUSTMENT FOREMAN (EDUCATION AND MANUFACTURING)

- participates in design, adoption and introduction of new developments in machinery manufacture;
- participates in tests and experiments of manufacturing equipment and machinery;
- inspects products to identify causes of defects;
- inspects and tests machines and manufacturing tools for accuracy;
- writes CNC programs to machine parts using computer numerically controlled machines of various types;
- sets up and performs corrective adjustments of computer numerically controlled machines and equipment;
- sets up automated machinery (computer numerically controlled manipulators, manufacturing robots);
- selects, sets up and performs corrective adjustments of manufacturing equipment and machines;
- develops technical assignments for manufacturing equipment and special machinery design;
- identifies malfunctions in operation of electric and mechanical units of the machinery;
- follows workplace documentation, keeps training and manufacturing equipment and machinery in appropriate working order;
- provides classroom instructions;
- operates computer numerically controlled equipment and machinery;
- coordinates and controls the work carried out and equipment operation rules;
- studies personal qualities of trainees, builds up and keeps contact with trainees' parents;
- develops, plans and administers programs and curricular of vocational education, prepares courses of study and training materials designed to aid in education process;
- gives trainees workplace skills and technical competences required for work in different jobs and occupational environment;
- prepares courses of study and training materials designed to aid in education process;
- conducts followup studies to evaluate effectiveness and quality of academic and vocational training programs;
- equips trainees with necessary academic and professional knowledge, skills and competences according to requirements of educational standards, vocational and job description vocational training curriculum;
- contributes to trainees' acquiring of modern professional techniques and manufacturing technologies, progressive skills and work practices, educates trainees to gain independence and self-control, and learn to take initiative;
- institutes and directs vocational training programs for development of work habits, skills, and abilities determines norms for training and manufacturing operations;
- ensures that trainees adhere to workplace and fire safety rules and regulations, occupational hygiene and sanitation standards, takes measures to develop strategies to prevent occupational injuries;
- prepares budget requests for education programs, orders school supplies, and prepares records and reports;
- participates in development and execution of contracts with organizations for worker (employee) training, apprenticeship and practical training;
- participates in development and implementation of career guidance, job assignment, and recruitment schemes;
- correlates educational programs with recreation program and other activities of institution and with parole program, etc.



Qualifications: Emergency Response Technician
Fire and Security Alarm Electrician

JOB DUTIES AND TASKS

EMERGENCY RESPONSE TECHNICIAN

- collects, analyzes, shares and provides information on protection of people and territories against emergencies;
- takes decisions to conduct fire fighting, search and rescue operations in emergency situation environment;
- supervises fire fighting, search and rescue operations and other emergency response operations implemented to save lives and protect people, reduce material losses, damages caused by emergency situations;
- uses protective equipment, fire fighting and rescue machines and equipment to cope with emergency situations;
- maintains and keeps protective equipment, fire fighting and rescue machines and equipment in working order;
- organizes vocational training of emergency response personnel, inspects workplaces to ensure the absence of health and safety hazards, such as high noise levels, radiation, or potential lighting hazards;
- makes recommendations to control or eliminate unsafe conditions at workplaces or public facilities, conducts standardized tests to ensure materials or supplies used throughout power supply systems meet processing and safety specifications;
- checks operation of fire alarms;
- develops and takes measures to ensure safety of various facilities; operates gas and smoke protection systems; determines water flows in water supply systems; consults population and economic entities on issues of fire safety and protection



FIRE AND SECURITY ALARM ELECTRICIAN

- installs, adjusts, troubleshoots and repairs intrusion detection systems, access control systems, and camera surveillance systems, mounts automatic alarm systems, attaches the wires and adjusts the sensitivity of the system, based on manufacturers' instructions;
- adjusts sensitivity of units based on room structures and manufacturers' recommendations, using programming keypads;
- Installs, maintains, or repairs security systems, alarm devices, and related equipment, following blueprints of electrical layouts and building plans, mounts and fastens control panels, door and window contacts, sensors, and video cameras, and attaches electrical and telephone wiring in order to connect components;
- tests and repairs circuits and sensors, following wiring and system specifications, tests backup batteries, keypad programming, sirens, and all security features in order to ensure proper functioning, and to diagnose malfunctions;
- feeds cables through access holes, roof spaces, and cavity walls to reach fixture outlets; then position and terminate cables, wires and strapping;
- performs entrance control of technical alarm devices that in order to receive and transfer messages use radio channels of tele and video surveillance systems, control and access management systems, radio stations

ELECTRICAL, ELECTRONIC MACHINERY AND OPTICAL EQUIPMENT MANUFACTURING INDUSTRY

Qualifications: Computer Equipment Electro Mechanical Technician
Electronic Computer (Personal Computer) Operator
Electrical Equipment Electrician
Electrical Equipment, Power and Lighting Network Installer

JOB DUTIES AND TASKS



Computer Equipment Electro Mechanical Technician

- responsible for maintenance and repair of equipment;
 - repairs and maintains computer, printing scanning and copying equipment, remote terminal units;
 - disassembles, repairs, assembles and adjusts functional parts of mechanical devices as necessary;
 - conducts followup studies to make sure that repaired units are in good working order; tests computer equipment;
- dismantles and disposes of equipment permanently withdrawn from use, remote terminal units;
 - engages in cable laying for computer networks;
 - records defects in defect logs



Electronic Computer (Personal Computer) Operator

- monitors and controls electronic computer and peripheral electronic data processing equipment to process business, scientific, engineering, and other data according to operating instructions;
 - enters commands, using computer terminal and activates controls on computer and peripheral equipment to integrate and operate equipment;
 - prints information;
 - monitors the system for equipment failure or errors in performance, responds to program error messages by finding and correcting problems or terminating the program;
- employs measures to ensure consistent data protection and security;
 - connects to local area networks and Internet;
 - operates office equipment (scanner, photocopier, fax, etc.)



Electrical Equipment Electrician

- tests electrical systems and continuity of circuits in electrical wiring, equipment, and fixtures, using various testing devices to ensure compatibility and safety of system;
- installs, maintains and repairs electrical wiring, equipment, and fixtures, ensures that work is in accordance with relevant codes, installs or services street lights, intercom systems, or electrical control systems;
- assembles, installs, tests, and maintains electrical or electronic wiring, equipment, appliances, apparatus, and fixtures, using hand tools and power tools

Electrical Equipment, Power and Lighting Network Installer



- installs electrical equipment, power and lighting networks;
- furnishes materials and equipment to perform the whole complex of electroinstallation works in residential, industrial, public and administrative buildings;
- performs cable laying operations to construct lighting networks;
- installs grounding cables and zeroing devices;
- dismantles devices and apparatus;
- installs protective devices, casings and framings

Qualifications: Electrical Equipment Mechanic/Electrician
Trading and Refrigeration Equipment Technician
Shift Maintenance Electrician Repair Mechanic (Mechanic)
Relay Protection and Automatics Equipment Mechanic/Electrician

JOB DUTIES AND TASKS

ELECTRICAL EQUIPMENT MECHANIC/ELECTRICIAN

- disassembles, repairs and assembles complex parts and units of electrical facilities, machines and equipment;
- fits together parts and units of electrical facilities, machines and equipment;
- reads and interprets schemes of electric connection;
- performs grounding and neutral earthing of power plants



TRADING AND REFRIGERATION EQUIPMENT TECHNICIAN

- troubleshoots, repairs, adjusts mechanical, electric, hydraulic parts and components, installs trading equipment, automatic and semiautomatic machines, food processing machines, electrothermal equipment, equipment of fruit and vegetable storage warehouses and components of the relevant equipment;
- dismantles, services, repairs, adjusts, installs and tests refrigerators



with simple automatic schemes of control;

- troubleshoots and repairs basic types of defects in refrigeration machines, equipment, wirings and controls



SHIFT MAINTENANCE ELECTRICIAN REPAIR MECHANIC (MECHANIC)

- performs lean manufacturing techniques and auxiliary processes of various degree of complexity, installs, dismantles, sets up and tests, repairs, adjusts, disassembles and assembles lifts, trading and refrigeration equipment, mechanical, semi-automatic and automatic production lines;
- disassembles, repairs, assembles parts and components of electrical machines, devices and appliances;

- services, repairs, adjusts mechanical, electric, electronic and hydraulic systems of machines and equipment;
- performs works of various degree of complexity reading and interpreting assembly diagrams;
- writes schematic diagrams and characteristics based on the results of tests;
- performs static and dynamic balancing of important parts and components;
- assembles, disassembles and adjusts measuring and testing stands and panels;
- ensures rational use of energy resources, basic and auxiliary materials;
- performs work to comply with occupational safety and health standards, takes measures to protect environment



RELAY PROTECTION AND AUTOMATICS EQUIPMENT MECHANIC/ELECTRICIAN

- performs basic and auxiliary manufacturing processes of installation, maintenance and repair of electric power stations and substations equipment;

- disassembles, repairs and assembles electric equipment of various degree of complexity;

- sets up, adjusts and inspects electric equipment to ensure proper working order, devices and apparatus, using testing and measuring equipment;

- identifies and diagnoses the source of malfunctions and removes damages to equipment of distribution networks, shields and power station assemblies

Qualifications: Radio and Telecommunications Equipment Radio Mechanic
Radio-Electronic Equipment Controller
Electronic Computer Technician/Electronic

JOB DUTIES AND TASKS



Radio and Telecommunications Equipment Radio Mechanic

- dismantles and installs semi-conductor elements and integrated microcircuits (IMC);
- reads and interprets graphic symbols of semi-conductor elements and IMC;
- installs and sets up TV-sets of all models, fine-tunes TV-sets to all TV channels in the relevant area;
- inspects, adjusts and repairs radio and telecommunications equipment and its units using equipment stands and on-site;
- reads and interprets basic electronics circuit and assembly diagrams of black-and-white and colour televisions, radios, tape recorders;
- inspects parameters of radio and telecommunications equipment using stationary measuring equipment;
- identifies and corrects malfunctions in TV-sets, radios and tape recorders

Radio-Electronic Equipment Controller

- performs basic and auxiliary manufacturing processes of monitoring radio and electronic equipment and devices using necessary controlling and measuring equipment, tools and instruments;
- operates controlling and measuring equipment, tools and instruments and testing equipment adhering to safety procedures and regulations;
- monitors, tests and accepts radio and electronic equipment and devices of various complexity according to requirements of technical standards and legal documents



Electronic Computer Technician/Electronic

- performs technical calculations for design of manufacturing processes, equipment and control tools, writes and maintains technical specifications;
- participates in installation, adjustment, testing and adoption of new computer techniques, operates modern computer technologies;
- performs technical inspection of devices and units, fine-tunes separate elements, units and systems, prepares electronic computers for operation;
- measures technical parameters and tests electronic computers, corrects defects and malfunctions revealed, monitors parameters of electronic elements;
- records performance parameters of electronic computers;
- prepares work assignments, instructs workers on their duties, supervises adherence to requirements of electronic computer operational manuals;
- prepares requests for equipment, components and spare parts;
- participates in disassembling and recycling of electronic equipment;
- determines technically justified time norms for designed manufacturing processes, norms of usage of materials, tools and energy resources, ensures rational use of all manufacturing resources;
- participates in justification of technical and economic efficiency of new technologies and innovation



Qualifications: Radio and Electronic Equipment Installer
Radio and Electronic Equipment Repairer/Assembler
Microelectronics Technician-Technologist
Manufacturing Process Automation Technician/Electromechanic

JOB DUTIES AND TASKS

Radio and Electronic Equipment Installer

- performs basic and auxiliary manufacturing processes of installing radio and electronic equipment and devices using necessary mechanical and (or) automatic electric installation tools, various instruments, devices and testing equipment;
- operates mechanical and (or) automatic electric installation tools, various instruments, devices and testing equipment adhering to safety procedures and regulations;
- performs electric installation during manufacture of radio and electronic equipment and devices of various complexity



Radio and Electronic Equipment Repairer/Assembler

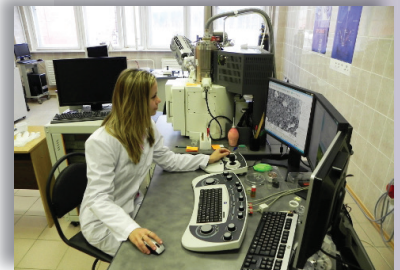
- performs basic and auxiliary manufacturing processes of assembling radio and electronic equipment and devices using necessary mechanical and (or) automatic electric installation tools, various instruments, devices and testing equipment;
- operates mechanical and (or) automatic assembling tools, various instruments, devices and testing equipment adhering to safety procedures and regulations;
- assembles products of radio and electronic equipment and devices of various complexity

Microelectronics Technician-Technologist

- participates in development and organization of manufacturing process, ensures consistent

quality of the manufactured products;

- calculates technical parameters of manufacturing processes and equipment, writes and maintains technical specifications and documentation;
- ensures reliability and efficiency of technological equipment;
- performs a systematic analysis of operational control results, identifies causes of defects, participates in development and introduction of measures to prevent technological losses and poor-quality products;
- ensures rational use of all kinds of manufacturing resources;
- participates in testing and introduction of new manufacturing equipment, tooling and progressive technologies;
- prepares initial data to conduct an analysis of performance results;
- upon manufacture of new microelectronics products performs activities to ensure establishment of environmentally friendly manufacturing processes

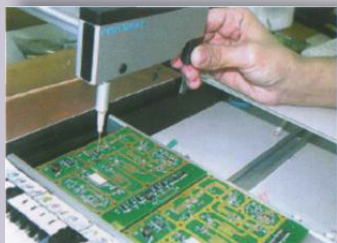


Manufacturing Process Automation Technician/Electromechanic

- operates systems of automation of manufacturing processes;
- identifies causes of malfunctions and defects in systems of automation and automated equipment;
- reads and interprets typical schemes of automatic control and monitoring to design schemes of manufacturing process automation;
- operates control systems of manipulators and robots to automate manufacturing processes;
- uses automatics elements in systems of automation;
- calculates elements of direct and alternating current circuits;
- participates in designing of elementary mechanisms and parts of devices used in systems of automation;
- selects systems of automation;
- takes measures to ensure reliability and efficiency in the work of systems of automation

Qualifications: Radio-Electronic Equipment Design and Manufacture Technician-Technologist
Information Technology Software Programmer/Technician

JOB DUTIES AND TASKS

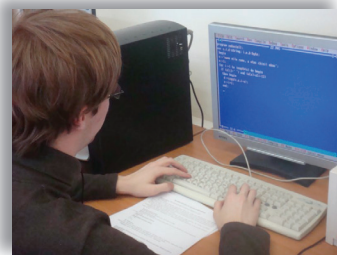


Radio-Electronic Equipment Design and Manufacture Technician-Technologist

- participates in design, manufacture, modification and unification of radio-electronic equipment;
- develops design and engineering documentation;
- writes technical specifications and technological documentation when making corrections to technological processes and modes of manufacture, makes relevant changes;
- operates manufacturing equipment in compliance with technology regulations, supervises its servicing and takes measures to ensure its reliability;
- instructs on-site personnel on safety rules and regulations;
- performs a systematic analysis of operational control results, identifies causes of defects, participates in development and introduction of measures to prevent technological losses and poor-quality products;
- uses modern information technologies

Information Technology Software Programmer/Technician

- writes program and/or system specifications and guidelines for moderate size systems;
- designs, codes, compiles, tests, debugs, modifies and documents new or existing applications programs within accepted standards;
- operates a variety of information processing equipment;
- reviews and oversees the work of programmers for assigned systems responsibility to ensure data integrity and availability;
- analyzes changes, enhancements, and/or systems designs to ensure data integrity and availability;
- identifies, researches and resolves program, machine, data, or system software problems
- ensures confidentiality and appropriate protection of information and data



Qualifications: Ceramic Tile Layer
Synthetic Material Layer
Plasterer
Painter

JOB DUTIES AND TASKS

**CERAMIC TILE LAYER**

- uses devices such as levels and measuring tapes to ensure they lay tile in a consistent way, arranges tiles on a dry floor prior to installing them to confirm they have enough pieces to lay;
- prepares cement adhesive, sticky paste or mastic;
- trims off unneeded pieces of tile or shapes tile to fit in areas;
- applies hard tile to floors and walls as well as ceilings and countertops;
- repairs and replaces tiles

**SYNTHETIC MATERIAL LAYER**

- prepares materials to lay covering;
- sweeps, scrapes, sands, or chips dirt and irregularities from base surfaces, and fills cracks with putty, plaster, or cement grout to form smooth, clean foundation;
- spreads adhesive cement over floor to cement foundation material to floor for sound-deadening, and to prevent covering from wearing at board joints, measures and cuts covering materials, such as rubber, linoleum or cork tile, and foundation material;
- lays covering on cement, following guidelines, to keep tile courses straight and butts edges of blocks to match patterns and execute designs

PLASTERER

- applies coats of plaster to interior walls, ceilings, and partitions of buildings, to produce finished surface;
- prepares and mixes plaster to desired consistency and to erect scaffolds;
- operates grout injection pumps, cement-guns, trowels;
- creates decorative textures in finish coat by marking surface of coat with brush and trowel or by spattering surface with pebbles;
- knows and understands peculiarities of using different plastering materials and their additives

**PAINTER**

- hangs wallpaper and fabrics;
- applies paint with cloth, brush, sponge, or fingers to create special effects;
- makes technological cards;
- spreads dropcloths over floors and room furnishings, and covers surfaces, such as baseboards, door frames, and windows with masking tape and paper to protect surfaces during painting;
- applies coats of paint, varnish, stain, enamel, or lacquer to decorate and protect interior or exterior surfaces, trimmings, and fixtures of buildings and other structures;
- simulates wood grain, marble, brick, or tile effects;
- smooths surfaces, using sandpaper, brushes, or steel wool, and removes old paint from surfaces, using paint remover, scraper, wire brush, or blowtorch to prepare surfaces for painting;
- paints monograms on stationery and sprinkles metallic powder over paint;
- restores painted surfaces



Qualifications: Mason
Concrete-Building Assembler
Slinger
Bricklayer

JOB DUTIES AND TASKS

MASON

- prepares surfaces prior to beginning work, fabricates, alters, repairs, and maintains walls, sidewalks, street curbs, floors, bathroom showers, sink counters, partitions, manholes, and other related structures or surfaces;
- operates various equipment and tools;
- determines work requirements and sequence of masonry/tile assignments through review of work orders, plans, or drawings, lays out work using chalk lines, plumb bobs, tapes, squares, and levels;
- follows established safety rules and regulations and maintain quality and safe and clean environment



CONCRETE-Building Assembler



- performs any combination of following duties concerned with assembling concrete buildings at construction site, working as member of crew: Positions column location templates at specified locations on prepared concrete foundations for installing wall panel support columns;
- Installs column in wet mortar with protruding pipe end of column down over rod, installs outside and inside wall panels that have tongue-and-groove edges, using pneumatic hoist;
- selects various kinds of hoist points, inserts pin through hoist hooks

and holes in concrete wall panels to lift and position panels between columns;

- assembles and installs lifting and elevating equipment and machines to assemble and install complex buildings and structures as well as building structures

SLINGER

- tilts, dips and turns suspended loads to maneuver over, under, and/or around obstacles, using appropriate multi-point suspension techniques;
- controls movement of heavy equipment through narrow openings or confined spaces, using chainfalls, gin poles, gallows frames, and other equipment;
- signals or verbally directs workers engaged in hoisting and moving loads, in order to ensure safety of workers and materials (crane operators)



BRICKLAYER

- lays building materials, such as brick, structural tile, and concrete cinder, glass, gypsum, and terra cotta block to construct or repair walls, partitions, arches, sewers, and other structures:
- examines plans and other specifications of structure to be erected, and plans set-out of building blocks;
- measures distance from reference points and marks guidelines on working surface to lay out work, taps block with trowel to level, align, and embed in mortar, allowing specified thickness of joint;
- fastens brick or terra cotta veneer to face of structures, with tie wires embedded in mortar between bricks, or in anchor holes in veneer brick;
- dismantles bricklaying manually;
- checks vertical and horizontal alignment of structure with level and plumb line as work progresses;
- when necessary, cuts brick to shape using hammer and chisel or trowel



Qualifications: Carpenter
Joiner
Plumber
Floor Layer

JOB DUTIES AND TASKS

CARPENTER

- cuts out, assembles and installs wooden frameworks of buildings, flooring and other heavy-framed woodwork, such as pouring chutes and scaffolding, at building sites;
- sheathes roofs, measures and marks coverings, repair roofs using modern materials;
- applies plaster and facing to walls and ceiling;
- assembles wooden parts, using glue, screws, nails and other means and fits metal rods, hinges, etc. to woodwork where necessary;
- cuts and shapes wood by hand or using machine tools, performing such operations as sawing, grooving, planing and sanding;
- assembles and fastens materials to make framework or props, using hand tools and wood screws, nails, dowel pins, or glue

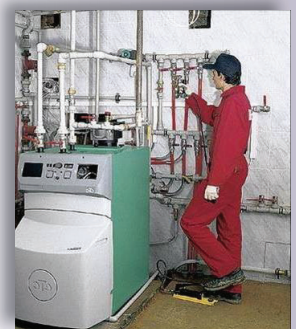


JOINER

- fabricates, assembles, installs, or repairs wooden furnishings according to blueprints, using handtools, power tools, and measuring instruments;
- lays out, cuts, assembles, and installs wooden parts using woodworking handtools and power tools, scales, square, and calipers;
- molds, bends, and laminates wood, using steam chambers, clamps, glue, and jigs, fabricates, assembles, and installs desks, chairs, and cabinets, using woodworking machinery, such as jigsaws, planers, jointers, mortisers, and tenoners

PLUMBER

- assembles and installs pipes, fittings and fixtures of drainage, heating, water supply and sanitary systems at building site;
- locates and marks position of pipe and pipe connections and passage holes for pipes in walls and floors; cuts openings in walls and floors to accommodate pipes and pipe fittings; cuts, reams, threads and bends pipes as necessary;
- installs assemblies and fixtures such as storage tanks, baths, toilets, taps and valves;
- caulks joints and tests them for leaks with air and water pressure gauges;
- ascertains job requirements from drawings and other specifications



FLOOR LAYER

- sets felt on floor and cuts it around obstructions to fit floor;
- applies coat of liquid cement to floor with brush and replaces felt on floor;
- applies coat of cement to felt and sets floor covering over cemented felt;
- lays ceramic tiles, parquet, laminate, tiles from synthetic materials;
- installs floor covering with special requirements (heating, fire resistant, anti-sliding, etc.);
- replaces any defective flooring material, repairs ceramic floors, polishes floors with special tools



Qualifications: Equipment Assembler
Architectural Technician
Architectural Technician
Technician/Constructor. Industrial and Civil Construction Foreman

JOB DUTIES AND TASKS

Equipment Assembler

- installs construction structures and manufacturing equipment;
- performs lifting and installs ballast on pipelines;
- installs and tests pipelines;
- installs pipelines of different diameter;
- slings, replaces, installs construction structures and manufacturing equipment



Architectural Technician

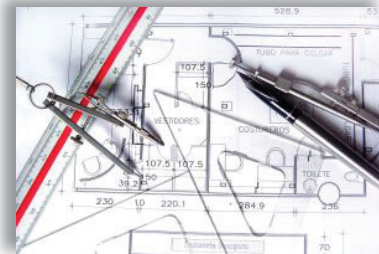
- participates in development of design documentation;
- prepares detailed drawings of architectural designs and plans for buildings according to specifications, sketches, and rough drafts provided by Architect;
- draws rough and detailed sketches, drawings, and plans to scale
- participates in designing of engineering infrastructure, city and landscape facilities;
- manufactures demonstration models of urban design, architectural and

landscape facilities;

- writes technical reports, explanatory notes, specifications, sheets;
- measures reconstructed facilities and drawings on their basis;
- calculates technical and economic parameters when designing architectural facilities

Industrial and Civil Construction Technician

- participates in development of estimates, design documentation for construction work and processes;
- makes technical calculations and draws up documentation;
- organizes construction and erection works at construction site according to specifications, sketches, and rough drafts;
- monitors adherence to construction and erection technologies, ensures their quality;
- performs geodetic works;
- organizes servicing, capital overhaul and renovation of buildings and structures;
- gives work assignments to employees (teams, brigades), supervises their execution



Technician/Constructor. Industrial and Civil Construction Foreman

- participates in development of design and estimate documentation, construction designs and technological processes of construction;
- makes technical calculations, writes and maintains technical documentation;
- organizes construction and installation works on a construction site according to working drawings, designs, sketches and technical standards and legal documents;
- ensures rational use of labour, technical and material resources;
- supervises adherence to requirements of construction and installation technologies, ensures safe work practices and proper quality of the performed works;
- performs geodetic works;
- organizes preventive, predictive, routine and breakdown maintenance and major overhaul and reconstruction of buildings and structures;
- assists trainees in acquiring modern manufacturing techniques, technologies and best practices;
- keeps and maintains accurate training records and analyzes training and industrial activities;
- participates in development and implementation of career guidance, job assignment, and recruitment schemes;
- participates in development and execution of contracts with organizations for worker (employee) training, apprenticeship and practical training

Qualifications: Technician-Technologist-Constructor of Water Supply,
Removal and Protection System
Road and Transportation Facility Construction Technician/Constructor

JOB DUTIES AND TASKS



TECHNICIAN-TECHNOLOGIST-CONSTRUCTOR OF WATER SUPPLY, REMOVAL AND PROTECTION SYSTEM

- organizes and monitors sequence of technological operations of construction, maintenance and reconstruction of water supply and removal systems;
- participates in development of design and estimate documentation, construction designs and technological processes of construction of water

supply and removal systems;

- performs geodetic surveying, planning and exploration, responsible for geodetic control within the process of construction, operation and reconstruction of water supply and removal systems;
- writes technological documentation, keeps accounting records for technical operation and repair of water supply and water removal systems;
- evaluates technical condition and ensures proper operation and operating parameters of water supply and water removal systems;
- identifies and analyzes causes of failures and malfunctions of units, components, parts of devices;
- participates in commissioning of equipment, machines and mechanisms used for reconstruction, servicing and repair of water supply and water removal systems;
- tests and accepts equipment, water supply and water removal installations into operation;
- understands and applies modern methods for quality monitoring of technological processes, materials, products

ROAD AND TRANSPORTATION FACILITY CONSTRUCTION TECHNICIAN/CONSTRUCTOR

- participates in geodetic surveying and geological inspection and testing of the area to survey, construct and repair automobile roads and artificial structures;
- participates in development of design and estimate documentation, construction designs and technological processes of construction and repair of projected roads;
- determines traffic loading on automobile roads, artificial structures, evaluates impact of weather and climatic factors;
- participates in organization and performance of construction and repair of automobile roads and artificial structures according to working drawings, designs, sketches and technical standards and legal documents;
- organizes works to ensure proper maintenance of automobile roads and artificial structures;
- oversees technological sequence of road construction and repair works;
- performs incoming inspection of incoming construction materials and structures, their warehousing and recording;
- gives work assignments to employees (teams, brigades), supervises adherence to requirements of technological discipline within the process of road construction and repair work, ensures safe work practices and proper quality of the performed works;
- keeps and maintains accounting records; uses modern information technologies to solve professional problems

Qualifications: Technician-Technologist-Constructor of Heat and Gas supply,
Ventilation and Air Protection System
Construction Product and Structure Manufacture Technician/Technologist
Technician Plumber

JOB DUTIES AND TASKS

TECHNICIAN-TECHNOLOGIST-CONSTRUCTOR OF HEAT AND GAS SUPPLY, VENTILATION AND AIR PROTECTION SYSTEM

- organizes and monitors sequence of technological operations of installation, maintenance and reconstruction of heat and gas supply systems, heating, ventilating and air conditioning systems, as well as devices for ventilation exhausts cleaning;
- participates in development of design and estimate documentation, construction designs and technological processes of heat and gas supply and ventilation;
- performs geodetic surveying, planning and exploration, responsible for geodetic control within the process of construction, operation and reconstruction of water supply and removal systems;
- tests microclimate systems and installations in industrial, civil and agricultural buildings and structures for air protection;
- uses technical tools of environment control;
- uses technical methods of automation and management of heat and gas supply and ventilation systems;
- writes technological documentation, keeps accounting records for technical operation, repair, reconstruction and major overhaul of gas and heat supply systems, as well as heating, ventilating and air conditioning systems and devices for ventilation exhausts cleaning;
- evaluates technical condition and ensures proper operation and operating parameters of the systems;
- identifies and analyzes causes of failures and malfunctions of units, components, parts of devices;
- oversees acceptance, records keeping, storage and rational use of materials, products, mechanisms, machines, equipment and attachments

CONSTRUCTION PRODUCT AND STRUCTURE MANUFACTURE TECHNICIAN/TECHNOLOGIST

- participates in development of design and estimate documentation, technical specifications for product and structure manufacture;
- accepts and tests raw materials, materials and components to determine their conformity with applicable standards and technical regulations; keeps and maintains records;
- participates in correction of composition of concrete and mortar mixes; calculation of norms of usage of raw materials, materials and energy resources;
- monitors quality of the manufactured products;
- gives work assignments to employees (teams, brigades);
- supervises adherence to requirements of technological, ensures safe work practices and proper quality of the performed works in industrial divisions of the enterprises;
- writes and maintains design and estimate documentation



TECHNICIAN PLUMBER

- participates in preparation of written work cost estimates and designs for plumbing systems, keeps records of assignments and produce detailed work reports;
- reviews blueprints and building codes and specifications to determine work details and procedures, adheres to a relevant sequence of plumbing services and activities, studies building plans and inspect structures to assess material and equipment needs, to establish the sequence of pipe installations, and to plan installation around obstructions such as electrical wiring;
- assembles, installs, services, adjusts and repairs pipes, fittings, and fixtures of heating, water, and drainage systems, according to specifications and plumbing codes;
- monitors incoming materials, plumbing equipment and devices, keeps records and performs their warehousing;
- organizes routine and preventive repair as well as major overhaul of plumbing system in buildings and structures

Qualifications: Motor Vehicle Driver of B, C Categories
Motor Vehicle Mechanic
Vehicle Operation Technician-Mechanic
Auto Mechanic

JOB DUTIES AND TASKS

MOTOR VEHICLE DRIVER of B, C CATEGORIES

- drives a motor vehicle under different conditions;
- analyzes situation on the road, assesses situation and makes a correct and prompt decision;
- repairs, services and overhauls mechanical parts of motor vehicles to keep them in good running order;
- ensures that vehicle is in good running order by checking fuel, oil, water, lights, brakes, etc., and that it is provided with tools and documents as required by law;
- knows and observes traffic regulations



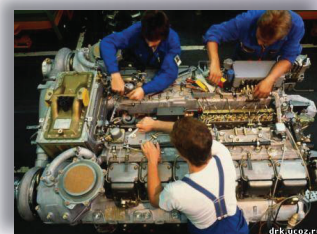
MOTOR VEHICLE MECHANIC

- examines and tests vehicle to ascertain nature, extent and location of defects, or ascertains job requirements from work sheets, technical manuals or other specifications;
- repairs, services and overhauls mechanical parts of motor vehicles to keep them in good running order;
- tests and inspects internal combustion engines;
- examines vehicles to determine causes and extent of damage or malfunctions



VEHICLE OPERATION TECHNICIAN-MECHANIC

- examines and tests vehicle to ascertain nature, extent and location of defects, ways to improve construction, operational reliability and durability of motor vehicles;
- identifies and analyzes causes of failures and malfunctions of units, assembly units, parts of motor vehicles and equipment;
- tests repaired or serviced vehicle in workshop or on road, and makes necessary adjustments to attain desired standard;
- organizes repairs or replacement of parts;
- plans optimal work procedures, using charts, technical manuals, and experience;
- ensures reliable and proper working order of equipment;
- organizes record keeping, storage and delivery of spare parts, operational and repair materials;
- organizes and performs transportation of motor vehicle in the given state using (if required) transport and load-lifting tools;
- ensures proper storage of motor vehicles



AUTO MECHANIC

- performs pre-sale inspection on vehicles;
- performs maintenance and inspection work on a vehicle;
- performs routine and scheduled maintenance services such as oil changes, lubrications, and tune-ups, diagnoses problems and makes repairs on the vehicle by replacing parts and components of engine Ignition system, bakes and hydraulics, tire pressure and wheel Alignment, transmission and drive system, lights, sensors and electrical systems, smog systems, belts and timing, onboard computer and electronics, fuel system and filters, oil systems and filters, coolant systems and exhaust system;
- installs additional equipment and accessories

Qualifications: Cook
Confectioner
Bartender
Waiter

JOB DUTIES AND TASKS

Cook

- prepares all kinds of hot and cold meals, snacks, pastries, etc, arranges for advance requisition of the necessary raw materials for the preparation of different types of dishes, prepares raw materials, semi-finished products to cook a variety of foods;
- cooks soups, sauces;
- cooks meals from grains, pasta, vegetables;
- cooks meals from fish and poultry;
- cooks meals from eggs and cottage cheese;
- cooks cold foods and snacks;
- cooks sweet foods and hot drinks, desserts;
- makes dough and dough products;
- operates relevant machines and equipment;
- monitors quality of cooking;
- inspects food preparation and serving areas to ensure observance of safe, sanitary food-handling practices;
- seasons and cooks food according to recipes or personal judgment and experience;
- plans and prices menu items;
- estimates expected food consumption; then requisition or purchase supplies, or procures food from storage;
- keeps records and accounts on computers



CONFECTIONER

- orders, requests and prepares raw materials and food or other supplies needed to ensure efficient operation;
- prepares semi-finished products for pastry;
- prepares yeast and yeast free dough, products and semi-finished products;
- prepares finishing semi-finished products and ingredients for cakes and pies;
- creates chocolate, gum, dessert toppings and other varieties of snack food

BARTENDER

- makes menus, bar wine lists, mixes and serves alcohol-free, mixed drinks and cocktails to patrons, directly or through waitstaff;
- prepares a bar for work;
- prepares for work and maintains mechanical, electric, refrigeration machines and machinery, cash devices, special computer systems, cleans glasses, utensils, and bar equipment;
- selects dishware, glass ware and measuring tools and instruments;
- prepares and serves cold and hot snacks;
- takes beverage orders from serving staff or directly from patrons



WAITER

- prepares tables with linen, china, cutlery, glasses, condiment holders, flowers and other decorations;
- makes and presents menu and takes orders from customers;
- assists and advises customers in selecting meals and drink; serves food and beverages at the table, by using various types of service;
- clears tables, removing dirty plates, glasses, cutlery, etc.



Qualifications: Railway Mechanic
 Diesel Engine Driver Assistant
 Steam Engine Driver Assistant
 Locomotive Driver Assistant
 Aircraft Engine Technician (Radio and electronic Equipment)

JOB DUTIES AND TASKS

Railway Mechanic

- disassembles auxiliary parts of the repaired railway vehicle, repairs and manufactures its parts;
- sets up and adjusts assemblies and components according to assembly and adjustment regulations and guidelines;
- cleans and greases spare parts of the repaired railway vehicle;
- fills up necessary forms for detailing major defects and required repairs, writes reports about defects in railway vehicle assemblies, parts and components



Diesel Engine Driver Assistant

- in cooperation with a diesel engine driver prepares and inspects engine at beginning and end of each run for operational efficiency;
- accepts and takes a diesel engine over, lubricates mechanisms and parts;
- follows instructions of an engine driver for diesel engine maintenance during run; uses stop blocks;
- makes routine repairs and adjustments of electrical, mechanical, auxiliary, pneumatic equipment, safety devices according to the requirements of diesel engine repair and servicing regulations;
- follows the established procedure of diesel engine maintenance and operation

Steam Engine Driver Assistant

- makes routine repairs and adjustments of electrical, mechanical, pneumatic and braking equipment according to the requirements of steam engine repair and servicing regulations;
- in cooperation with a steam engine driver prepares and inspects engine at beginning and end of each run for operational efficiency, accepts and takes a steam engine over, lubricates mechanisms and parts;
- assembles and disassembles trains within rail yards; uses stopping blocks



Locomotive Driver Assistant

- makes routine repairs and adjustments of electric machines, devices and equipment, braking system, mechanical, auxiliary, pneumatic equipment according to the requirements of locomotive repair and servicing regulations;
- monitors gauges and meters that measure speed, amperage, battery charge, and air pressure in brakelines and in main reservoirs;
- in cooperation with an locomotive driver prepares and inspects engine at beginning and end of each run for operational efficiency, accepts and takes a locomotive over, lubricates mechanisms and parts;
- assembles and disassembles trains within rail yards; uses stopping blocks

Aircraft Engine Technician (Radio and Electronic Equipment)

- maintains and services radio and electronic equipment;
- identifies and corrects defects and malfunctions of equipment;
- sets up, adjusts and inspects operation of equipment and systems in laboratories, on-site;
- maintains equipment, connects relevant devices, registers necessary characteristics and parameters, analyzes obtained results;
- keeps and maintains operational and technical documentation, develops instructions;
- dismantles and recycles radio and electronic equipment permanently removed from operation

Qualifications: Electric Engine Driver Assistant
Weight Lifting, Construction, Road Machines and Equipment Technician Mechanic
Loading Unloading, Railroad and Road Construction Machinery and Equipment Maintenance Technician
Aircraft Engine Technician (Electric, Lightning and Technical Equipment)

JOB DUTIES AND TASKS

ELECTRIC ENGINE DRIVER ASSISTANT

- in cooperation with an electric engine driver prepares and inspects engine at beginning and end of each run for operational efficiency, accepts and takes an electric engine over, lubricates mechanisms and parts;
- makes routine repairs and adjustments of electric machines, devices and equipment, braking system, mechanical, auxiliary, pneumatic equipment according to the requirements of electric engine repair and servicing regulations
- Weight Lifting, Construction, Road Machines and Equipment Technician Mechanic
- calculates assembling pieces and systems of weight lifting, construction, road machines and equipment;
- evaluates operational order of weight lifting, construction, road machines and equipment;
- identifies and analyzes causes of failures and defects in weight lifting, construction, road machines and equipment, organizes their servicing and maintenance;
- organizes record keeping, storage and release of spare parts and repairing materials, ensures rational use of manufacturing resources;
- monitors quality of the performed works;
- ensures reliable operation of diagnostic equipment and tools;
- ensures proper and safe storage of weight lifting, construction, road machines and equipment

LOADING UNLOADING, RAILROAD AND ROAD CONSTRUCTION MACHINERY AND EQUIPMENT MAINTENANCE TECHNICIAN

- organizes operation, maintenance and repair of loading and unloading, railroad and road construction machinery and equipment according to the requirements of machinery and equipment repair and servicing regulations;
- operates and repairs various kinds of equipment used for loading and unloading of cargoes, as well as for construction, reconstruction and repair of railroads;
- analyzes and identifies causes of malfunctions and defects in loading and unloading, railroad and road construction machinery and equipment;
- participates in development of time schedule of various kinds of repairs of machinery and equipment, acceptance of machinery and equipment after major repairs, development of occupational safety and fire protection measures;
- checks and monitors conformity of operational order of machinery and equipment after repair and their delivery to operation to technical requirements;
- ensures safe working conditions when operating, maintaining and repairing loading and unloading, railroad and road construction machinery and equipment;
- monitors quality of maintenance and repair of loading and unloading, railroad and road construction machinery and equipment

AIRCRAFT ENGINE TECHNICIAN (ELECTRIC, LIGHTNING AND TECHNICAL EQUIPMENT)

- maintains and repairs electric, lightning and technical equipment and systems;
- participates in making estimates and simple schemes of electric, lightning and technical equipment operation;
- operates electric, lightning and technical equipment, identifies and corrects defects and malfunctions of equipment, takes measures to improve reliability of equipment operation according to applicable standards and regulatory acts;
- sets up, adjusts and inspects operation of equipment and systems in laboratories, on-site;
- maintains equipment, connects relevant devices, registers necessary characteristics and parameters, analyzes obtained results;
- keeps and maintains operational and technical documentation, develops instructions;
- dismantles and recycles electric, lightning and technical equipment permanently removed from operation

Qualifications: Telecommunication Technician for Radio Communication,
Radio Broadcasting and Television Systems
Linear Electronic Communication and Wire Broadcasting Electrical Engineer
Communication Operator

JOB DUTIES AND TASKS

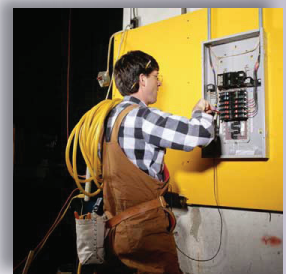
TELECOMMUNICATION TECHNICIAN FOR RADIO COMMUNICATION, RADIO BROADCASTING AND TELEVISION SYSTEMS

- operates electric communication, radio communication, radio broadcasting and telecommunication equipment according to standard legal acts and standard regulatory and legal acts;
- inspects and measures operational parameters of the equipment, channels and paths;
- installs, sets up, adjusts, updates, examines and tests equipment;
- identifies and corrects defects and malfunctions of the equipment, identifies their causes;
- monitors quality of the accepted and transferred electronic communications signals;
- ensures proper radio broadcasting to cover numerous mass events;
- uses in his/her work various software to manage and diagnose channels and paths of radio communication, broadcasting and telecommunication systems;
- performs metrological checking of gauges and instruments;
- participates in justification of economic efficiency of new equipment and progressive technology introduction;
- participates in design of radio communication, radio broadcasting and telecommunication systems;
- exercises intensive technical oversight and operational control over the work performed by subordinated employees, assists them in making repairs at a relevant site;
- prepares contracts for communication services;
- ensures use of all types of resources;
- advertises services provided by the enterprise engaged in technical operation of radio communication, radio broadcasting and telecommunication equipment;
- participates in analysis of electromagnetic conditions and quality indicators of common and internal radio networks;
- monitors availability of emergency and contingency reserve of operational and technical materials, spare parts, tools and protective devices, ensures their safety



LINEAR ELECTRONIC COMMUNICATION AND WIRE BROADCASTING ELECTRICAL ENGINEER

- operates, maintains and removes defects in all lines of communication and radiofication, repairs air lines, adjusts wires following safety rules and regulations;
- lays and installs communication cables;
- restores subscriber lines with or without replacement of wire with cable input



COMMUNICATION OPERATOR

- provides postal and electronic communication services;
- keeps records, groups, sorts out and stores post, documents, cash and other material assets;
- supervises and controls promptness and quality of postal and electronic communication services provided to customers

Qualifications: Telecommunication Network Technician
Post Office Technician

JOB DUTIES AND TASKS

TELECOMMUNICATION NETWORK TECHNICIAN

- ensures reliability of technical equipment and machines and quality of all information transfer;
- operates, maintains and repairs equipment and machines of cable, long-distance and local telecommunication, and linearly-cable communication installations according to technical standards and legal and regulatory acts;
- inspects and measures parameters of the equipment;
- identifies and removes defects in the equipment, keeps equipment, machines and channels of transfer in compliance with the established operational and technical norms, maintains degree of channel use established for a relevant site;
- checks proper working order of power supplies, office communication, reserve equipment, keeps their working order;
- prepares transferring and receiving broadcasting and communication equipment to work under the schedule;
- participates in conduct of linear tests and experimental operation of equipment and machines, in acceptance of experimental models of new machines, development of operational manuals for new machines, equipment modernization, introduction of means of automation and mechanization, distribution of the advanced techniques and methods of labour;
- reports according to the established procedure of the communication failure;
- monitors state of emergency and contingency reserve of operational and technical materials, spare parts, tools and protective devices, ensures their safety and control over their usage;
- ensures proper radio broadcasting to cover numerous state and mass events;
- keeps records of equipments, machines, amateur radio stations, high-quality devices, quality parameters of equipment and machine operation, servicing and repairs, movement of commodities and materials, working hours, complaints about operation of technical means;
- ensures high-quality operation of emergency and technical alarm systems

POST OFFICE TECHNICIAN

- ensures provision of postal services to customers;
- ensures accurate and trouble-free operation of communication facilities;
- receives and pays out cash, sells postage stamps, postal and money orders, and conducts other post office counter business;
- replenishes cash and stock reserves as necessary; balances cash;
- organizes advertising of all types of services and press subscriptions;
- organizes retail sales of periodicals and consumer goods according to applicable rules;
- conducts other post office counter business, such as services for the transfer of banking of money and the payment of accounts or license fees;
- monitors quality of acceptance, registrations and adherence to the regulations by services of processing, delivery and receipt of mail and post;
- participates in exchange of mail with post transport, supervises mail movement on routes;
- monitors work performed by delivery services;
- ensures timely handling of accompanying documents



Qualifications: Hairdresser
Hairdressing and Makeup Artist
Photo Technician

JOB DUTIES AND TASKS

HAIRDRESSER

- prepares, shampoos, applies and removes simple hairdressing treatments;
- selects necessary materials to provide hairdressing services;
- cuts, styles, colours, straightens and permanently waves hair with chemical solutions, and provides clients with hair and scalp treatments;
- operates and maintains hairdressing equipment, tools and instruments;
- provide services such as bleaching, conditioning, permanent waving, straightening and tinting dry and style hair using brushes, combs, straightening irons and other equipment shave and trim beards and moustaches advise clients on hair care block



HAIRDRESSING AND MAKEUP ARTIST



- designs sketches and drawings of new models of haircuts, hairstyles, hairdos, dying, makeup and nail decorations according to perspective art-aesthetic requirements and fashion trends;
- develops and introduces new techniques of work with dyes, polishes, gels, waxes, mousses, sprays and other hair treatments;
- writes technical descriptions of original, contest and prospective models of hairstyles, haircuts, waves, makeups, nail decorations and other types of hairdressing services;
- prepares and displays at meetings of the art council models of haircuts and hairdos;
- participates in testing new technological processes of hairdressing services

provision;

- oversees introduction and subsequent application of new technologies of work heat treatments;
- participates in determination of time for provision of separate types of services;
- trains hairdressers for participation in professional contests, shaws, fashion festivals;
- ensures adherence to occupational, environment and fire regulations during his/her professional activities

PHOTO TECHNICIAN

- takes pictures of individuals, families, and small groups, either in studio or on location, mounts, frames, laminates, and/or lacquers finished photographs;
- develops various types of film using a variety of laboratory equipment; determines development process required dependent on film type;
- prints and develops film of circuit designs for use in fabricating printed circuit boards, using photographic equipment and knowledge of photographic processing: reads work order to determine photographic techniques required;
- engages in research to develop new photographic procedures and materials ensures implementation of the existing and introduction of new technological processes into photography manufacture;
- employs a variety of specialized photographic materials and techniques, including infrared and ultraviolet films, macro-photography, photogrammetry and sensitometry, tests new equipment and introduces it into photography manufacture;
- develops and introduces new kinds of photographic products and services;
- participates in evaluation of economic efficiency of activities (depending on the organizational-legal form of the enterprise)



PRINTING AND PUBLISHING INDUSTRIES

Qualifications: Planography Pressman Flexography Pressman
Bookbinder Cutting Machine

JOB DUTIES AND TASKS

Planography Pressman

- prepares for printing one colour offset printing machines as well as lubricates machines, cleans colouring, wetting and printing devices, applies printing ink to a printing plate and wetting the printing plate with an aqueous fountain medium;
- sets up, adjusts and prints by operating double colour sheet fed offset printing machines highly artistic products and high security forms;
- prints publications with illustrations of bar-coded and graphical components, as well as cartographic publications by operating four and six offset printing machines;
- services and maintains all types of offset printing machines;
- performs works to create phototype plates of various complexity and makes paints according to the original

Flexography Pressman

- fills ink fountains and regulates flow of ink on inking rollers; locks type or printing plates in position; loads paper rolls on machine and threads paper through machine guides and rollers, set up and adjusts a printing machine;
- supervises and monitors printing of labels and packages on paper, polypropylene or foil paper by operating universal flexographic printing machines;
- sets up and adjusts printing machines, drying and cooling devices, winding and unwinding units and cutting devices;
- ensures proper and consistent quality of polygraph product manufacture



Bookbinder

- performs series of tasks in binding books, brochures with mechanical and automatic lines of binding machines and devices;
- sews together signatures to form book bodies with sewing machine, compresses sewn-together signatures of book bodies to uniform thickness with smashing machine, trims books to size with powered cutting machine;
- gilds or marbles edges of pages as necessary; inserts each book into machine which rounds back and forms grooves at back edge in which covers are hinged;
- makes leather, velvet and silk bindings and fair copies with edge roughing and gilding;
- monitors quality and corrects defects in machines and equipment



Cutting Machine Operator

- sets up and operates machine to cut paper stock and glue from spine of book bodies preparatory to printing, binding, and rebinding, reviews job sample containing dimensions or specifications to determine page sequence, kind of fold, size of sheet, and amount to trim from spine of book body;
- measures from edge of page, using scale, and types instructions on keyboard of computer, pushes buttons to activate computer program, or manually sets cutting guides, clamps, and knives, using wrench, to cut paper or spine to prescribed dimensions;
- lubricates machine, changes dull knives, and performs running repairs as needed, removes defects in the work of one knife, rotary sheet, paper and carton cutting machines;
- examines cut stock and spine of book body for trimming imperfections, such as ragged edges and incomplete cuts, and to verify that sheets are cut square and to specified size or cut marks;
- monitors accuracy of cutting and shading of paper;
- trims and cuts particularly complex encyclopedia and highly artistic publications as well as draft publications by three-knife cutting machines

Qualification: Technician-Technologist

JOB DUTIES AND TASKS

Technician-Technologist

- under supervision of a more qualified specialist develops technological processes and modes of manufacture for simple products or their elements;
- determines step by step route for manufacture of products and control procedures for all operations of the manufacturing sequence;
- writes technical specifications and technological documentation, develops technology mapping, route and material maps, ведомости оснастки for organization of polygraph manufacture;
- participates in patent examinations ;
- participates in determination of technically justified time norms for designed manufacturing processes, determines material usage norms and tools required at workplace;
- oversees adherence to the requirements of manufacturing discipline in manufacturing departments of the enterprise and equipment operation regulations;
- participates in testing manufacturing equipment, experimental work implementation for inspection and equipment of manufacturing processes;
- ensures implementation of existing and introduces new manufacturing processes in printing and publishing industries;
- studies and analyzes information, domestic and foreign experience in printing and publication;
- organizes retraining and qualification improvement of employees to improve performance and develop their skills;
- ensures fulfillment of the targeted assignments, increase in labour productivity, rational use of polygraph materials;
- participates in planning and analysis of manufacturing results;
- participates in evaluation of economic feasibility of the manufacturing process;
- keeps and maintains records and documentation;
- ensures proper quality of polygraph products in accordance with technical and regulatory acts in the area of technical norms and standardization;
- performs individual operations for manufacture of polygraph products under conditions of partial or comprehensive automation and computerization;
- takes measures to improve quality of the products;
- removes and corrects defects in polygraph products, takes measure to prevent them in future;
- services, adjusts and makes minor repairs to all equipment and machinery according to the technical regulations, cleans and performs sanitary treatment of the equipment and machinery;
- ensures rational use of energy resources, paper, glues, paints and other materials used for printing;
- maintains records and accounts for the use of polygraph materials;
- ensures adherence standards of occupational, fire, environmental safety and healthful work environments, energy saving;
- maintains among employees an environment of mutual trust, support, commitment and cooperation according to legal and ethic norms and standards



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