

## DESCRIPTION OF MODULE

### [Occupational Safety and Health, Environmental Protection]

<b>Aim</b>	The aim is to develop a set of knowledge, skills and attitudes of learners about the duties and rights of employees, the importance of occupational safety in wood processing, and key work processes in order to be able to master and use safe working practices in professional employment.
<b>Tasks (Learning Outcomes)</b>	<p>Objectives:</p> <ol style="list-style-type: none"> <li>1. To provide learners with an understanding of the key problematic issues addressed by labour protection.</li> <li>2. To understand the importance of health and assess the role of labour protection in maintaining it, as well as to understand one's opportunities to participate in and willingness to participate in labour protection processes.</li> <li>3. To develop understanding of the duties, rights and responsibilities of employees and employers, requirements of regulatory enactments in the field of labour protection.</li> <li>4. To develop understanding of the organization of labour protection in the company, labour protection measures, the implementation of which ensures health-friendly conditions that facilitate work.</li> <li>5. To give an understanding of the wood processing industry and work processes, the situation in the field of labour protection, and preventive measures to prevent possible consequences.</li> <li>6. To understand the working environment and possible factors affecting workers in the wood processing industry and ways to protect themselves through safe working methods and personal protective equipment.</li> <li>7. To select safe working methods for lifting and moving loads to avoid potential risks when moving loads by hand as well as using transport and lifting mechanisms.</li> <li>8. To develop understanding of the conditions which guarantee safe work with powered tools and relate to the requirements for their design and individual sub-assemblies, as well as to comply with labour protection regulations when working with circular saws, bed-type millers, ribbon saws, milling machines, drilling machines, grinding machines, electric hand tools, and lathes.</li> <li>9. To understand the labour protection requirements that ensure safe work in wood finishing and chemical protection stations.</li> </ol>

## CONTENT OF MODULE

Learning outcomes	Topics	Content (suggested)	Units	Assessment of acquired learning outcomes (optimal level)	Methods and ideas for learning process
<p>Being able to: Apply in practice the requirements of regulatory enactments and standards in the field of labour protection.</p> <p>Knowing: The hierarchy and requirements of regulatory enactments, the system of labour protection in the company.</p> <p>Understanding: Duties and responsibilities specified in</p>	<p>Regulatory enactments on employment rights and labour protection. The system of labour protection in the company.</p>	<p>Labour Law, Labour Protection Law</p> <p>Performance of internal monitoring of the working environment</p> <p>Training procedures in labour protection and fire safety</p> <p>Procedures for the investigation and recording of accidents at work and occupational diseases</p> <p>Specific provisions on hazardous equipment, etc.</p> <p>The system of labour protection in the company</p>	<p>6</p>	<p>Describes the main requirements of the labour protection law for the employer in a production company.</p> <p>Describes the duties and responsibility of the manager in ensuring a system of labour protection in the company.</p>	<p>Learners learn about regulatory enactments governing employment rights and labour protection (the interpretation and enactment thereof in the company), as well as about the labour protection system in the company (a lecture, independent work).</p> <p>Discussion on “The Duties and Responsibilities of the Company Manager within the Company’s Labour Protection System”.</p> <p>An interview in the WORKING ENVIRONMENT with the company’s Labour Protection Specialist about compliance with the Labour Law and Labour Protection Law.</p>

regulatory enactments.					
<p>Being able to: Spot risks and hazards in the working environment.</p> <p>Knowing: Methods for the prevention and mitigation of risks.</p> <p>Understanding: The adverse effects of risks on the health of employees.</p>	<p>Risk factors of the working environment and the impact thereof on health; technical and organisational measures to mitigate risks</p>	<p>Types of risk factors and the impact thereof on health: Physical risk factors Physical risk factors Chemical risk factors Biological risk factors Dust, PM particles Psychosocial and organisational risk factors Injury risk factors</p>	8	<p>Describes the main risks of the working environment in wood processing and furniture production.</p> <p>Identifies the existing risks of the working environment in the company.</p>	<p>Learners get acquainted with the risk factors of the working environment, the impact thereof on health (a lecture, independent work).</p> <p>Practical work – Being able to notice risks in the WORKING ENVIRONMENT; using free mobile applications, record 5 examples from workplaces, where there are risks.</p> <p>Knowledge test on risks of the working environment in wood processing and furniture production plant</p> <p>An interview in the WORKING ENVIRONMENT with the company’s Labour Protection Specialist about risks factors in production.</p>
<p>Being able to: Recognize ergonomic solutions in workplaces.</p> <p>Knowing: Ergonomic</p>	<p>The basics of ergonomics</p>	<p>The science of ergonomics, the interaction of man and environment</p> <p>Moving loads, risks and safe working practices</p>	6	<p>Describes the main basic ergonomic conditions in a production company.</p>	<p>Learners get acquainted with the basic conditions and requirements of ergonomics in a production company, the methods of ensuring thereof (a lecture, independent work).</p> <p>Practical task:</p>

<p>requirements for arranging the working environment.</p> <p>Understanding: The nature of ergonomics in the interaction of man and environment.</p>		<p>Work poses and the impact thereof on health</p> <p>Pace of work and amplitude of movements</p> <p>Human – equipment, interaction (software, ease of use, etc.)</p>			<p>Calculation of workload in the WORKING ENVIRONMENT resulting from the chosen method of moving loads and the duration of work during a shift of production.</p> <p>Discussion on “Ergonomic Solutions for Improving the Working Environment in Wood Processing and Furniture Production”.</p>
<p>Being able to: Identify equipment hazards and risks to workers’ health</p> <p>Knowing: Safety requirements for machinery and types of safety equipment, operational principles thereof.</p> <p>Understanding: Risks to the health of workers caused by equipment.</p>	<p>Safety of technological equipment and work equipment used in the production</p>	<p>Safety requirements for hand tools</p> <p>Protective covers and shields for moving parts of equipment</p> <p>Safety signs and technical protective equipment for the operation of machinery</p> <p>Safety requirements during cleaning and repairs of equipment (Lock Out Tag Out)</p>	<p>6</p>	<p>Describes the operating and maintenance safety conditions of the equipment.</p>	<p>Learners become acquainted with the operating requirements and safety conditions for the technological equipment and work equipment used in production (a lecture, independent work).</p> <p>Practical task - specify the safety marks to be used for the production plant and shop in the WORKING ENVIRONMENT, according to the situation description given.</p> <p>An interview with the company’s Labour Protection Specialist on the safety of equipment in production.</p>
<p>Being able to: Determine the readiness of electrical equipment for safe operation visually</p>	<p>Basics of electrical safety</p>	<p>Electrical equipment, electrical installations;</p> <p>Effects of electrical current on the human body;</p> <p>Types of electrical injuries;</p>	<p>2</p>	<p>Describes the responsibility of the employer and the main conditions for electrical safety in the company.</p>	<p>Learners become acquainted with electrical safety requirements and enactment thereof in the company: employer’s responsibility, types of electrical equipment, effects of electrical current, types of injuries, safety measures (a lecture, independent work).</p>

<p>and by other means.</p> <p>Knowing: Electrical safety requirements.</p> <p>Understanding: Potential hazards of electrical current to workers' health and production process.</p>		<p>Classification of premises according to their electrical hazard;</p> <p>Basic measures for protection against the impact of electrical current;</p> <p>Permissible distances to live parts;</p>			<p>Discussion on electrical injuries in wood processing and furniture production plant.</p> <p>An interview in the WORKING ENVIRONMENT with the company's electrical safety specialist on electrical safety of equipment in production.</p>
<p>Being able to: Organise work in accordance with the requirements of fire safety regulations.</p> <p>Knowing: How to use fire-fighting devices and how to organise evacuation and provide first aid.</p> <p>Understanding: General principles for the operation of fire protection systems.</p>	<p>Fire safety, civil protection, and emergency response.</p>	<p>Fire Safety and Fire-fighting Law, Fire Safety Regulations, Organisation of Works Involving Fire Hazard</p> <p>Fire-fighting equipment and the usage thereof, fire protection systems and principles for their operation</p> <p>Explosion hazards in the working environment and ATEX basics (equipment for potentially explosive atmospheres)</p> <p>Civil Protection and Disaster Management Law</p> <p>Organisation of evacuation and practical extinguishing</p>	<p>6</p>	<p>Describes the basic conditions of fire safety and civil protection, the requirements for ensuring them in the company, and the responsibility of the employer.</p> <p>Identifies the fire-fighting equipment used in the company, calculates the required quantity of each piece of fire-</p>	<p>Learners get acquainted with fire safety, civil protection conditions and their enactment in a production company, as well as with emergency responses (a lecture, independent work).</p> <p>Calculation of fire extinguishers by area and volume of stored material at a defined wood processing and furniture production plant.</p> <p>An interview in the WORKING ENVIRONMENT with the company's fire safety specialist on plant fire safety and reducing explosion risk in production.</p>

		Providing first aid to a victim.		fighting equipment and the conditions for placing thereof.	
<p>Being able to: Orient oneself in safety data sheets and find the information one needs for the work.</p> <p>Knowing: Types of exposure to chemicals and the principles of protection.</p> <p>Understanding: the need for safety requirements when working with chemicals.</p>	Chemicals and mixtures thereof in the working environment	<p>Classification of chemicals</p> <p>REACH requirements for working with chemicals, Safety Data Sheets</p> <p>Exposure of chemicals to the human body, occupational exposure limit values</p>	6	<p>Describes the main conditions of use and storage of chemicals in the company, responsibility of the employer.</p>	<p>Learners become acquainted with the safety requirements for the use and storage of chemicals and mixtures thereof in a production company (a lecture, independent work).</p> <p>Practical task - finding information in a safety data sheet - analysing a defined safety data sheet of a hazardous chemical.</p> <p>Practical task - according to the given hazardous chemical, to select safety equipment for persons who work with the chemical in a wood processing and furniture factory in the <b>WORKING ENVIRONMENT</b>.</p>
<p>Being able to: Choose appropriate collective and personal protective equipment for the respective type of work.</p>	Personal and collective protective equipment	<p>Types of hand protection equipment and protection classes</p> <p>Types of respiratory protection equipment and protection classes</p> <p>Types of fall protection equipment</p>	6	Describes main personal and collective protective equipment at the company.	<p>Learners become acquainted with the requirements for the application of personal and collective protective equipment and provision thereof in a production company (a lecture, independent work).</p> <p>Practical task - to equip a person working in wood processing and furniture</p>

<p>Knowing: Classification of personal protective equipment and types of collective protective equipment.</p> <p>Understanding: Importance of protective equipment to protect workers' health.</p>		<p>Types of foot protection equipment and protection classes</p> <p>Collective protective equipment - fencing, ventilation, noise insulation, etc.</p>		<p>production with personal protective equipment (justify the choice).</p> <p>An interview in the WORKING ENVIRONMENT with the company's Labour Protection Specialist about the personal and collective protective equipment used at the plant.</p>
<p>Being able to: To set a positive example for workers by one's actions, to involve workers in the improvement of the working environment.</p> <p>Knowing: Methods for communicating with workers and building a safety culture.</p> <p>Understanding: Importance of a safety culture.</p>	<p>Safety culture</p>	<p>Organizational culture and components - values, vision, assumptions.</p> <p>Leadership and action as an example for workers, awareness raising among workers</p> <p>Delegation of duties and responsibilities</p> <p>Worker engagement and promotion of collaboration</p> <p>Recording, investigating and developing preventive measures against near misses and dangerous situations.</p> <p>Conflict resolution</p>	<p>2</p> <p>Describes the concept and manifestation of the safety culture in the company, the role of the employer in ensuring the safety culture.</p>	<p>Learners learn about the importance of safety culture, basic principles, implementation and provision in the company (a lecture, independent work).</p> <p>An interview in the WORKING ENVIRONMENT with the company's Labour Protection Specialist and Quality Manager about examples of the safety culture used at the production plant.</p> <p>Discussion on "Safety culture at the production plant, challenges and benefits".</p>

<p>Being able to: Recognize different types of waste.</p> <p>Knowing: General environmental protection requirements and waste sorting principles.</p> <p>Understanding: The conditions of environmental pollution and the environmental impact of inefficient use of resources.</p>	<p>Environmental protection</p>	<p>Environmental protection system and permits for polluting activities</p> <p>Environmental impact of production processes</p> <p>Types, sorting and disposal of production waste</p>	<p>2</p>	<p>Describes the basic conditions of environmental protection in the company and the responsibility of the employer.</p>	<p>Learners get acquainted with environmental protection requirements, regulatory enactments governing this area, and ensuring compliance with these requirements in a production company (a lecture, independent work).</p> <p>An interview in the WORKING ENVIRONMENT with the company's Environmental Protection Specialist and Quality Manager about the environmental protection measures used at the production plant.</p> <p>Test on types of hazardous waste, storage and disposal thereof in wood processing and furniture production plant.</p>
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