

CONTENT FOR MODULE "Preparing objects for insulation"

Learning outcomes	Theme	Advisable content	Descriptions of acquirement levels for learning outcomes		Theory – practice ratio	
			Satisfactory	Good	Theory 164	Practice 434
<p>Able: to explain building components, differences between elements and their uniting factors. To recognize them at the construction object.</p> <p>Knows: main building elements, building components, baseplates and their characteristics;</p> <p>Understands: the mutual relations between building components.</p>	1. Introduction to building components	1.1. Classification of buildings; 1.2. Building elements; 1.3. Building types; 1.4. Bases and foundations; 1.5. Walls, partition walls; 1.6. Coverings and floors; 1.7. Roofs and roof coverings.	Characterizes building classification.	Explains building parts, differences between elements and their uniting factors.	8	8
			Recognizes building components, elements and types. Gets acquainted with building components and baseplates on location at the object.	Recognizes and explains differences between various building components and their mutual connection on location at the object.	4 2 6 8 6 8	8 16 24 16 24 24
Able: to plan the	2. Construction	2.1. Construction	Describes construction norms,	Plans the sequence of necessary	6	



<p>sequence of necessary operations and arrangements for preparing the object before insulation;</p> <p>Knows: sequence of construction operations, terminology, main components of a building, can explain the main characteristics of building sustainability and what actions to take for conserving resources in buildings;</p> <p>Understands: planning sequence of construction operations, the changes in construction caused by climate changes; The essence of sustainable</p>	<p>basics</p>	<p>terminology;</p> <p>2.2. Sequence of construction operations.</p> <p>2.3. Construction standards, norms, documents regulating construction.</p>	<p>terminology and the planning sequence of insulation operations.</p>	<p>operations and the establishing of object while preparing it for insulation. Explains construction terminology and the significance of planning sequence for construction operations according to documents and standards regulating construction. Understands the significance of sustainable construction in conserving natural resources.</p>	<p>6</p> <p>4</p>	
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construction.						
<p>Able: to prepare the workplace for insulation according to the layout of construction site.</p> <p>Knows: the technological preparation of utilities, the importance of accessories in establishing the object, ground characteristics;</p> <p>Understands: the principles and sequence of establishing the object.</p>	<p>3. Establishing the construction site</p>	<p>3.1. Organizing the work place;</p> <p>3.2. Preparing communications;</p> <p>3.3. Assembling scaffolding and pedestals.</p>	<p>Stacks and unloads materials, prepares scaffolding and utilities according to the superintendent's instructions.</p>	<p>Can establish a work place according to the construction site layout. Stacks and unloads materials according to the requirements and terms for storing materials. Independently prepares utilities and scaffolding for work while monitored by practice supervisor.</p>	<p>2</p> <p>2</p> <p>6</p>	<p>40</p> <p>36</p> <p>40</p>
<p>Able: to interpret simple building drawings;</p> <p>Knows: types of building drawings, visualization techniques, scales, the significance of applied symbols, building components and</p>	<p>4. Basics of interpreting drawings</p>	<p>4.1. Theoretical basics for composing drawings. Drawing as a tool for visual communication. Types of drawings.</p> <p>4.2. Drawing technique and basic standards. Types of lines in drawings. Formats</p>	<p>Differentiates between drawings by their significance and recognizes objects based on indications in the drawing. Understands indications and denominations in the drawing sketches.</p>	<p>Employs various drawings for performing operations in establishing an object. Explains indications in the construction drawings. Determines the construction materials and parameters for building insulation operations in drawings. Explains drawing details.</p>	<p>8</p> <p>16</p>	<p>24</p>



<p>structures, the significance of detail drawings and the appropriate employment, measurement systems, types of construction materials, symbols and possibilities of employment;</p> <p>Understands: information depicted in drawings of simple buildings, linking elements of details, the visualized information regarding construction materials to be employed in building insulation.</p>		<p>and scales of drawings. Setting sizes, finalizing the drawing.</p> <p>4.3. Construction drawing. Material designations in drawings. Elements of buildings and insulation in drawings and their established designations. Constructive elements and diagrams of buildings. Layout drawing. Building section drawing. Front drawing. Drawings of utility nets.</p>			24	40
<p>Able: to recognize the construction materials to be employed and to place them in the construction site accordingly;</p>	<p>5. Construction materials</p>	<p>5.1. Classification of construction materials; 5.2. Storage requirements for construction materials; 5.3. Utilizing construction material waste.</p>	<p>Recognizes and names construction materials necessary for preparing the object, differentiates between them by external features. Describes construction materials to be used, the</p>	<p>Explains the structure and significance of construction materials necessary for preparing the object. Describes the difference between construction materials, the requirements for storing and</p>	6 4	8 8



<p>Knows: the employment of main construction materials;</p> <p>Understands: requirements for storing, placing and utilizing construction materials.</p>			<p>requirements for storing and placing construction materials.</p>	<p>placing them. Places construction materials in locations selected correctly. Utilizes construction waste correctly according to law and green skills.</p>		
<p>Able: to recognize construction machinery and mechanisms, to prepare and work with mechanical tools, electrical and measuring instruments.</p> <p>Knows: the employment of construction machinery in establishing the object and their zones of operation;</p> <p>Understands: the importance of construction machinery, mechanisms and measuring</p>	<p>6. Construction machinery and mechanisms for establishing a construction object</p>	<p>6.1. General information of construction machinery;</p> <p>6.2. Machinery for preparing a construction site;</p> <p>6.3. Lifting machinery;</p> <p>6.4. Carrier machinery;</p> <p>6.5. Earthwork machinery;</p> <p>6.6. Machinery and equipment for packing materials;</p> <p>6.7. Mechanized tools for construction;</p> <p>6.8. Measuring instruments.</p>	<p>Differentiates between machinery for preparing construction site, lifting, carrying, earthwork, equipment for packing materials, mechanized and measuring instruments. Applies mechanical, electrical and measuring instruments according to the practice supervisor's instructions.</p>	<p>Understands the basic operations of machinery for preparing construction site, lifting, carrying, earthwork, equipment for packing materials, mechanized and measuring instruments. Independently works with mechanized, electrical and measuring instruments for establishing a construction site.</p>	<p>8</p> <p>2</p> <p>2</p> <p>2</p>	<p>4</p> <p>6</p> <p>6</p> <p>8</p> <p>8</p> <p>42</p> <p>44</p>



instruments in the construction process.						
<p>Able: to prepare a construction site, to employ individual and communal protection devices according to the work hazards;</p> <p>Knows: work safety requirements for earthworks, heavy lifting, electrical and fire safety requirements at the object, first aid requirements at the construction object;</p> <p>Understands: work hazards during the preparation of object, the importance of employing individual protection devices and mutual collaboration of the team in creating a safe work</p>	<p>7. Work safety during the object establishing</p>	<p>7.1. Work safety requirements in construction (fire and electrical safety in object establishing);</p> <p>7.2. Work safety requirements in earthwork;</p> <p>7.3. Terms for heavy lifting;</p> <p>7.4. Individual and communal work protection devices.</p>	<p>Recognizes the hazards involved in object preparation operations. Employs individual and collective protection devices during object establishment.</p> <p>Complies with fire and electrical safety requirements during object preparation.</p>	<p>Characterizes the impact of construction object hazards on the safety and health of workers. Selects and employs individual and communal protection devices in accordance with the work objective.</p> <p>Complies with fire and electrical safety requirements during object preparation operations and acts accordingly in the case of accident.</p>	<p>6</p> <p>2</p> <p>2</p> <p>2</p>	



environment.						
<p>Able: to collaborate with colleagues and supervisor at the construction site;</p> <p>Knows: the conditions of interaction. Understands the diversity of social relationships;</p> <p>Understands: the importance of mutual collaboration on the construction site, the importance of positive attitude at work.</p>	<p>8. Individual in social relationships</p>	<p>8.1. Social perception, interpersonal perception effects;</p> <p>8.2. Interaction;</p> <p>8.3. Social relationships.</p>	<p>Understands terms: stereotype, prejudice.</p> <p>Knows and understands communication functions.</p> <p>Names the preconditions of effective interaction.</p> <p>Differentiates between various interaction situations on the construction site.</p>	<p>Differentiates between widespread stereotypes and personal characteristics.</p> <p>Appreciates the importance of using verbal and nonverbal interaction.</p> <p>Employs various techniques for effective interaction.</p> <p>Compares and analyses contrary arguments in the collective.</p>	<p>4</p> <p>4</p> <p>4</p>	
<p>After mastering this module the student can plan the sequence of construction operations, comply with work safety and environmental protection requirements, organize the work place according to construction territory establishing requirements and drawings. Assemble scaffolding monitored by practice supervisor. Select mechanical and electrical instruments and prepare them for work.</p>						
<p>At the module conclusion the student takes an exam consisting of a theoretical and practical part.</p> <p>Theory consists of a test which includes knowledge of:</p> <ul style="list-style-type: none"> • Construction terminology; • Building classification; • Sequence of construction operations; • Construction standards, documents regulating construction; • Drawing technique and basic standards; • Construction material classification; 						

- Requirements for storing construction materials;
- Construction machinery;
- Work safety requirements in construction;
- Mutual social relations.

Practical part is passed by performing the following operations individually or in a work group while complying with work safety requirements:

- Recognizes building components in the object and characterizes them;
- Establishes a work place;
- Assembles scaffolding, pedestals;
- Recognizes denominations of materials, indications and building components in drawings, sections;
- Correct storing and utilizing of construction materials;
- Recognizes construction machinery and instruments and characterizes them;
- Works with measuring instruments.