

WP3 - Shared design of professional qualification clusters

Report containing units of learning outcomes to be a base to run assessment and validation of formal, non-formal and informal learning (mainly on the jobs) and to calculate, accredit and recognise ECVET points (leaning on denominated professional competences with units of learning outcomes as set in curricula/training programmes)

Partner:

Institute for Sustainable Technologies - National Research Institute

Authors: Ireneusz Woźniak, Michał Nowakowski



Radom 2013

Table of contents

Introduction	3
1. Professional competences which correspond to learning outcomes in vocational core curriculum	4
2. Learning outcomes according to vocational core curriculum corresponding to professional competences required by employers	18
3. Learning outcomes related to professional competences, occupations and qualifications in formal, non-formal and informal education	26
3.1. Roofer	27
3.1.1. Carrying out roof work	27
3.2. Fitter and Finisher in the Construction Industry	32
3.2.1. Drywall system installation	32
3.2.2. Carrying out painting and paper-hanging Works	37
3.2.3. Carrying out floor-covering works	42
3.3. Bricklayer-Plasterer	48
3.3.1. Carrying out masonry and plastering works	48
4. Presentation of units of learning outcomes as a modules	59
5. Conclusions	89
Bibliography	94

Introduction

This report was designed according to work package WP3 “Shared design of professional qualification clusters” of the LdV project “Mobility in Building Construction Sector through ECVET”.

The objectives of WP3: to reveal units of learning outcomes for chosen occupations as a bridge between common repertoire of professional competences in regard to chosen occupations and units of learning outcomes for chosen occupations (formal path) in result of denomination of professional competences and units of learning outcomes on “component activities” level (knowledge and skills) and attributes level (metacompetences).

This report was developed on the basis of comparative analysis of two sets of results obtained from the work package WP2 “Analysis and preparatory research of professional field”:

- Common sets of professional competences,
- Common sets of units of learning outcomes.

The above mentioned sets describe the education and employment requirements for three occupations and five qualifications:

1. Roofer

Qualification: Carrying out roof work

2. Fitter and Finisher in the Construction Industry

Qualifications:

- Drywall system installation,
- Carrying out painting and paper-hanging Works,
- Carrying out floor-covering works.

3. Bricklayer-Plasterer

Qualification: Carrying out masonry and plastering works.

In line with the idea of the project, the set of professional competences, commonly agreed by the partners, addresses the labour market demand of countries such as Poland, Italy, Switzerland within the selected occupations and qualifications. The basic criterion of learning outcomes units selection was to meet the requirements of employers, which were provided in the form of professional competences set. Owing to that, education within the framework of international exchange of students will benefit both the students and employers.

1. Professional competences which correspond to learning outcomes in vocational core curriculum

In the following tables, the professional competences corresponding to learning outcomes, which are recorded in the core curriculum (formal education) of selected occupations and qualifications, are highlighted yellow. The professional competences, which are not highlighted, belong to the area of non-formal and informal education.

Roofer

Qualification: Carrying out roof work

Area 1: Demolition of a building or its part

1.1.	Conducting works related to renovation and demolition of roofing
1.1.1.	Identification of construction and non-construction roof elements of buildings to be demolished
1.1.2.	Conducting roof demolition with use of manual tools and devices
1.1.3.	Carrying out works related to demolition or replacement of roof work and roof slope drainage
1.1.4.	Aggregation of a part that can be used again, part of useless roof construction and demolition waste
1.1.5.	Application of the ways of removing dust and fragments, as well as of rubble disposal during roof demolition
1.1.6.	Application of safe procedures concerning removal of roofing made of materials containing asbestos

Area 2: Roofing construction

2.1.	Roofing insulation construction
2.1.1.	Carrying out undercoats for various roofing
2.1.2.	Roof and flat roof insulation construction (roof felt, roofing membrane)
2.1.3.	Distribution and fastening of battens
2.1.4.	Roofing forms construction
2.1.5.	Inspection of the correctness of carrying out roofing undercoat
2.2.	Construction of roofing in various structures and shapes
2.2.1.	Use of project documentation, technical specifications concerning carrying out and accepting roof works, standards and instructions concerning roofing construction
2.2.2.	Preparation of drawings of roof slopes and roofing elements
2.2.3.	Preparation of a bill of quantities related to roofing construction and calculation of costs concerning roofing construction
2.2.4.	Selection and preparation of materials, tools and equipment for roofing construction
2.2.5.	Setting various roofing types (tile, plain sheet metal, steel roofing tile, shingle and others)
2.2.6.	Preparation of irregular sheet metal to construct irregular roof slope roofing
2.2.7.	Construction of irregular roof slope roofing
2.2.8.	Construction of roofing from slate and other untypical materials
2.2.9.	Fitting roof windows, skylights and exits
2.2.10.	Quality assessment of roofing's workmanship

Area 3: Carrying out roof work and roof slope drainage

3.1.	Preparation of drawings concerning roof work and elements of roof slope drainage
3.1.1.	Use of project documentation, technical specifications concerning carrying out and accepting works, standards and instructions concerning roof work and roof slope drainage
3.1.2.	Preparation of drawings and drafts concerning roof work and elements of roof slope drainage
3.1.3.	Preparation of a bill of quantities related to construction and demolition of roof work and roof slope drainage, calculation of costs of their carrying out
3.1.4.	Application of software supporting roof tasks performance
3.1.5.	Carrying out works related to preparation of a sheet metal to process it
3.1.6.	Carrying out and installing roof works
3.1.7.	Mounting roof works to specific building components
3.2.	Selection and preparation of materials, tools and devices to carry out roof work and roof slope drainage
3.2.1.	Differentiation and selection of elements of roof slope drainage systems
3.2.2.	Selection of materials to carry out roof work and roof slope drainage
3.2.3.	Preparation of materials to construct roofing undercoats
3.2.4.	Selection of roof windows, skylights and exits
3.2.5.	Use of roof work devices and tools according to operating rules
3.3.	Installation of roof slope drainage elements
3.3.1.	Performance of a quantity survey related to construction and demolition of roof work and roof slope drainage, preparation of works clearance
3.3.2.	Fitting elements of roof slope drainage
3.3.3.	Fitting gutters, rainwater pipes and roof drains
3.3.4.	Quality assessment of the workmanship of roof work and roof slope drainage

SUBJECT III: DETERMINATION OF A COMMON SET OF ATTRIBUTES (metacompetences)

Area 1: Key attributes

1.1.	Updates knowledge and improves professional skills
1.1.1.	Presents constant motivation to learn and improve own skills
1.1.2.	Presents activity in the case of possible introduction of a change

Area 2: Decision making

2.1.	Foresees results of taken actions
2.1.1.	Deals well with some level of uncertainty
2.1.2.	Identifies premises on which decision should be based
2.1.3.	Responds to appearing problems
2.1.4.	Does not postpone making a decision
2.2.	Is able to bear responsibility for taken actions
2.2.1.	Accepts bearing responsibility and risk

Area 3: Relations

3.1.	Cooperation in a team
3.1.1.	Presents openness and kindness in relation to the others
3.1.2.	Provides people with information and support
3.1.3.	Eagerly adjusts own plans to needs of the others, so that a group accomplishes intended aims
3.1.4.	Notices and analyses points of view and needs of the others
3.1.5.	Considers ideas of the others while developing own concepts

Area 4: Change

4.1.	Flexibility
4.1.1.	Quickly changes a strategy and programs in accordance with changes in the environment
4.1.2.	Presents interest, kindness, adaptability during introduction of new procedures/methods/techniques
4.1.3.	Modifies the approach to solving problems, if circumstances require this
4.1.4.	Is open for revision of own ideas
4.1.5.	Integrates own ideas with concepts of the others
4.1.6.	Is determined at change's proposal and not discouraged by doubts of the others

Area 5: Balance

5.1.	Emotional balance
5.1.1.	Deals well with stressful situations and tension showing self-control and confidence
5.1.2.	Reacts adequately and constructively even in a stressful situation
5.1.3.	Does not show significant mood swings
5.1.4.	Accepts criticism constructively
5.1.5.	Does not lose hope easily
5.1.6.	Does not deny own skills in the case of problem
5.1.7.	Does not attack the others impulsively and aggressively
5.1.8.	Deals with criticism and irony (towards him/her or the others) in the balanced way

Fitter and Finisher in the Construction Industry

- Qualifications:
- Drywall system installation
 - Carrying out painting and paper-hanging works
 - Carrying out floor-covering works

Area 1: Installation of floor screed

1.1.	Preparation of a floor screed site
1.1.1.	Installation of a sand bedding layer or preparation of a ceiling's surface
1.1.2.	Carrying out insulation works as needed
1.1.3.	Designation of a screed's surface level
1.1.4.	Seal of insulation layers, openings and cracks
1.1.5.	Location of wards in doorways
1.1.6.	Mechanical preparation of a mortar and concrete
1.2.	Distribution of a concrete mix
1.2.1.	Concrete distribution and alignment with use of a spade, screed or other specialist tools
1.2.2.	Smoothing out screed's surface
1.2.3.	Screed maintenance
1.3.	Installation of prefabricated screed from concrete slabs and plasterboards
1.3.1.	Designation of a screed's level

1.3.2.	Arrangement of ready prefabricated slabs in rows in parallel to a wall with maintenance of staggered joints in neighbouring rows
1.3.3.	Leaving a settlement joint between a screed and vertical elements of a building
1.3.4.	Fill of welds between slabs with a mortar dependent on a slab's type
1.3.5.	Alignment of contacts' surface
1.4.	Installation of a screed from self-levelling mortar
1.4.1.	Preparation of the anhydrite mortar strictly according to the manufacturer's instructions
1.4.2.	Pouring a self-levelling compound on prepared base till mortar's level reaches determined height
1.4.3.	Protection of a prepared screed for 48 hours against draughts, high (above 25°C) and low (below 5°C) temperature till complete dry

Area 2: Installation of plasterboards

2.1.	Recognition of materials applied in drywall partition systems
2.1.1.	Recognition of plasterboards for a drywall system
2.1.2.	Recognition of gypsum fibre boards for a drywall system
2.1.3.	Recognition of steel sections for a drywall system
2.1.4.	Recognition of fitting elements applied in drywall partition systems
2.1.5.	Recognition of sealing and insulating materials
2.1.6.	Determination of drywall's physical, chemical and mechanical properties
2.1.7.	Determination of drywall parameters
2.1.8.	Determination of parameters of steel sections applied in a drywall system
2.1.9.	Preparation of a gypsum mortar applied in a drywall system
2.1.10	Recognition of symbols and characteristics of materials applied in a drywall system and application of methods to ensure their quality
2.1.11	Determination of applications of particular drywall system materials
2.1.12	Application of principles of occupational health and safety and environmental protection during works with building materials and their efficient use
2.2.	Installation of partition wall systems
2.2.1.	Preparation of a partition wall assembly stand
2.2.2.	Preparation of a storage location for materials to install walls
2.2.3.	Transport of materials to install walls
2.2.4.	Determination of a partition walls' location
2.2.5.	Preparation and cut of boards to install flat walls
2.2.6.	Preparation and cut of boards to install arch walls
2.2.7.	Selection and assembly of sections to install partition walls
2.2.8.	Mounting boards to sections
2.2.9.	Arrangement of insulation between boards
2.2.10	Installation of doorframes
2.2.11	Installation of sanitary equipment walls
2.2.12	Mounting shelves, walls and pictures to boards
2.2.13	Carrying out finishing works such as spackling, external corners treatment, cleaning boards
2.2.14	Preparation of a demand for materials to install walls
2.2.15	Quality assessment of conducted works
2.2.16	Application of principles of occupational health and safety, fire protection and environmental protection
2.3.	Installation of suspended ceiling systems
2.3.1.	Preparation of a ceiling covering assembly stand
2.3.2.	Preparation of a storage location for materials to install ceiling coverings
2.3.3.	Transport of suspended ceiling materials
2.3.4.	Designation of a suspended ceilings' location
2.3.5.	Preparation and cut of boards to install suspended ceilings
2.3.6.	Selection and assembly of sections to install suspended ceilings
2.3.7.	Mounting boards to sections
2.3.8.	Arrangement of insulation between boards
2.3.9.	Carrying out finishing works such as spackling, external corners treatment, cleaning boards
2.3.10	Application of principles of occupational health and safety, fire protection and environmental protection
2.4.	Installation of wall covering systems

2.4.1.	Preparation of a wall covering assembly stand
2.4.2.	Preparation of a storage location for materials to install wall coverings
2.4.3.	Preparation of a drywall base
2.4.4.	Selection of proper drywall
2.4.5.	Preparation and cut of boards to install drywall
2.4.6.	Installation of drywall on masonries (direct)
2.4.7.	Designation of a drywall plane
2.4.8.	Designation of a place to mount covering holders on wall sections
2.4.9.	Selection and assembly of sections to install drywall
2.4.10	Arrangement of insulation layers
2.4.11	Arrangement of coverings on wall sections
2.4.12	Installation of coverings to hide installations
2.4.13	Carrying out finishing works such as spackling, external corners treatment, cleaning boards
2.4.14	Application of principles of occupational health and safety, fire protection and environmental protection

Area 3: Painting wooden and metal elements and surfaces

3.1.	Covering surfaces and other objects
3.1.1.	Installation of scaffolds, decks and ladders
3.1.2.	Arrangement of materials protecting workstation against paint dropping
3.1.3.	Pasting of blending tapes on surface parts that do not require painting (edges, doorframes, windows, etc.)
3.2.	Preparation of the first layer of paint to paint interior and exterior new not painted wooden surfaces
3.2.1.	Verification if no oily spots or resin rests are present on a painted surface
3.2.2.	Application of a layer of flat colour on the surface
3.2.3.	Grinding of the surface with a sanding sheet of medium category of granulation
3.2.4.	Application and smoothing of an undercoat mix
3.2.5.	Application of a layer of flat colour
3.3.	Preparation of the first layer of paint to paint interior and exterior painted wooden surfaces
3.3.1.	Verification if the surface does not shiver, paint does not go off or other defects do not appear
3.3.2.	Scraping of shivering or cracked paint with use of paint scraper or electric grinder
3.3.3.	Application of a layer of flat colour on the sanded surface
3.3.4.	Application of an undercoat mix on the sanded surface
3.3.5.	Application of a flat colour's layer on the surface impregnated with an undercoat mix
3.4.	Preparation of the first layer of paint on previously not painted metal surface
3.4.1.	Grinding of the surface to remove rust
3.4.2.	Thorough cleaning of the surface to remove oily rests
3.4.3.	Application of the antirust priming paint's layer
3.4.4.	Application of the metal priming paint's layer
3.5.	Preparation of the first layer of old painted metal surface
3.5.1.	Verification if the surface does not shiver, paint does not go off, there is no rust or other defects
3.5.2.	Grinding of the surface with brushing machines or grinders
3.5.3.	Application of metal priming paint on ground surfaces
3.5.4.	Application of the joint mix on ground surfaces
3.5.5.	Grinding of the undercoat mix surface with a sanding sheet of medium category of granulation
3.5.6.	Application of a priming paint after undercoat mix dries
3.6.	Painting metal and wooden surfaces
3.6.1.	Application of the first layer of flat colour
3.6.2.	Grinding of the surface with fine sanding sheet
3.6.3.	Application of the second layer of flat colour or light paint

Area 4: Installation of coverings

4.1.	Base preparation
4.1.1.	Assessment of base's condition (geometrical features and surface properties, strength features, humidity content, alkalinity level, condition of base's cleanness)
4.1.2.	Base preparation by providing the above-mentioned appropriate features (smoothing, strengthening, drying off, cleaning)
4.1.3.	Cleaning the base, damping it or washing directly before application of a covering
4.2.	Installation of stone coverings
4.2.1.	Preparation of stone elements by carrying out nests, anchors and connectors
4.2.2.	Cleaning and damping of the surface of side and back covering boards
4.2.3.	Arrangement of the first row of elements located at the lowest level on fixed base, set according to stretched and levelled rope, or pasting them
4.2.4.	Set-back of arborea or other anchoring elements
4.2.5.	Mounting elements after previous verification of the correctness of their setting
4.2.6.	Fill of space between back surface of a covering and the base
4.2.7.	Arrangement of inserts to provide equal thickness of joints
4.2.8.	Grouting coverings
4.2.9.	Current inspection of a vertical and horizontal level of elements
4.3.	Installation of wood coverings
4.3.1.	Preparation of a slatted undercoat or a grate made of pegs, blocks, slats or battens embedded in the base in a small distance from a wall to enable air circulation between a covering and a wall
4.3.2.	Mounting slats, planks or boards to the undercoat with nails or screws
4.3.3.	Current inspection of a vertical and horizontal level of mounted elements
4.4.	Installation of coverings from boards, slats and polymer spatial elements
4.4.1.	Mechanical fixing of mounting battens to the base
4.4.2.	Current inspection of a vertical and horizontal level of mounted base
4.4.3.	Installation with screws of the slats and boards that should have openings relatively bigger than screw's diameter in order to provide easy movement of elements resulting from thermal expansion
4.4.4.	Installation of edge bandings

Area 5: Installation of wooden floors

5.1.	Arrangement of floors from mosaic boards
5.1.1.	Inspection of undercoat's condition
5.1.2.	Undercoat preparation (drying off, grinding irregularities, spackling hollows, cleaning, grounding with a diluted glue in 1:5 proportion)
5.1.3.	Designation of a ruled line along which the first row of boards is to be pasted
5.1.4.	Application of a strip of dispersion adhesive by a putty knife with tooth
5.1.5.	Adhesion of a row of boards at the wall opposite to main door
5.1.6.	Verification of the correctness of arranging the first row, on which the easiness of arranging subsequent rows depends
5.1.7.	Adhesion of subsequent rows with simultaneous thorough clamp of boards. Verification if corners of particular boards reach exactly the same place
5.1.8.	Finishing of a floor with mopboards or baseboards
5.1.9.	Smoothing of a floor by grinding
5.1.10.	Application of a colourless lacquer on floor surface
5.2.	Installation of floors from boards
5.2.1.	Inspection of undercoat's condition
5.2.2.	Undercoat preparation (drying off, grinding irregularities, spackling hollows, cleaning, grounding with a diluted glue in 1:5 proportion)
5.2.3.	Application of an adhesive with a putty knife with tooth
5.2.4.	Adhesion of boards with simultaneous mounting them to previous boards and pushing them to the undercoat
5.2.5.	Finishing a floor by nailing up mopboards, grinding and lacquering
5.3.	Installation of floors from coniferous wood boards and glued laminated boards
5.3.1.	Base preparation as at board floors

5.3.2.	Arrangement of a polymer sandwich layer
5.3.3.	Arrangement of the first row of boards with distance of 1-1.5 cm indicated by temporary wedges along the wall
5.3.4.	Verification of the first row's line
5.3.5.	Arrangement of subsequent rows with simultaneous pushing them to the previous ones
5.3.6.	Finishing of a floor by nailing up mopboards
5.3.7.	Grinding and lacquering floors made of coniferous wood boards

Area 6: Installation of polymer floorings

6.1.	Installation of floors from plastic carpets
6.1.1.	Seasoning of materials for at least 24 hours in temperature of rooms in which they will be applied
6.1.2.	Cut of carpets into sections as long as a room with consideration of the rule of perpendicular course of joints to exterior wall with windows
6.1.3.	Application of adhesives that valid standards, certificates or instructions and manufacturer's guidelines recommend to each floor material
6.1.4.	Application of the adhesive's layer on the undercoat surface with use of a putty knife or swat with tooth
6.1.5.	Welding of sheet joints, adhesion of mopboards
6.2.	Installation of floors from fitted carpets
6.2.1.	Lay-out of a sheet system in a room
6.2.2.	Cut of sheets with a sharp knife along steel ruler through a pleat of neighbouring sheets
6.2.3.	Loose arrangement of sheets, cut of them with use of self-adhesive distance piece or adhesive
6.2.4.	Installation of a baseboard or fixing of mopboards
6.3.	Installation of floors from resin and mineral compositions
6.3.1.	Cooperation with specialised companies acting based on the licence granted by material's manufacturer
6.3.2.	Mixing components according to the manufacturer's instruction
6.3.3.	Distribution of a putty with use of special putty knife supplied with pull-out distance pins, which thickness is equal to floor's thickness, or distribution of a putty between arranged guide strips and their alignment
6.3.4.	Sprinkling with sand to make surface abrasive

Area 7: Wall and floor tile laying

7.1.	Removal of existing tiles from floors and walls
7.1.1.	Preparation of materials and devices (tools, goggles, filler, sanding sheet, hammer, etc.)
7.1.2.	Putting on protective gloves and goggles
7.1.3.	Protection of a floor against rubble falling down
7.1.4.	Removal of tiles with use of a hammer and a chisel
7.1.5.	Sweeping left dust and rubble
7.1.6.	Repair of cracks and spalls with use of a filler
7.1.7.	Grinding of the rest of adhesive mortar till obtaining smooth surface, with use of a mask and at simultaneous room airing
7.2.	Planning and preparation to lay tiles
7.2.1.	Preparation and verification of tiles (type, dimensions, quality), materials (mortar/concrete or adhesive mortar) and equipment (cross distancers, chalk, tile cutter, mortar swap, wet sponge, clean cloth, etc.)
7.2.2.	Inspection of tile base
7.2.3.	Verification if walls are perpendicular
7.2.4.	Verification of surface's thickness and level
7.2.5.	Installation of relevant measurements, application of equipment and smoothing to ensure that tiles are laid properly
7.2.6.	Planning tile layout, drawing lines and points on surfaces
7.2.7.	Initial establishment of tile layout on dry floor according to the design
7.2.8.	Verification of a pattern and the necessity of cutting tiles so that they match the design in a given area
7.2.9.	Cut of tiles with use of relevant cutting devices

7.3.	Laying tiles on a mortar
7.3.1.	Preparation of clean and wet surface
7.3.2.	Distribution and smoothening of a mortar layer
7.3.3.	Laying tiles according to the course of lines
7.3.4.	Application of cross distancers to keep the same distances between tiles
7.3.5.	Tapping of the surface with a spade, rubber hammer or small wooden blocks to fix tiles strongly
7.4.	Laying floor tiles with use of an adhesive
7.4.1.	Cleaning of the surface
7.4.2.	Distribution of an adhesive's layer with use of a putty knife with tooth
7.4.3.	Laying tiles according to the course of lines
7.4.4.	Application of cross distancers to keep the same distances between tiles
7.4.5.	Tapping of the surface with a spade, rubber hammer or small wooden blocks to fix tiles strongly
7.4.6.	Wiping of excessive adhesive immediately after pasting a tile
7.5.	Laying wall tiles with use of a mortar
7.5.1.	Arrangement of the insulation layer on the wall as needed
7.5.2.	Distribution and smoothening of the insulation layer on the wall, also on a tile if necessary
7.5.3.	Adhesion of tiles while slightly tapping the surface with use of a spade, rubber hammer or small wooden blocks
7.5.4.	Wiping of excessive mortar
7.6.	Laying wall tiles with use of an adhesive
7.6.1.	Cleaning of the surface
7.6.2.	Arrangement of the insulation layer on the wall as needed
7.6.3.	Distribution of an adhesive's layer with use of a putty knife with tooth
7.6.4.	Adhesion of tiles while slightly tapping the surface with use of a spade, rubber hammer or small wooden blocks
7.6.5.	Wiping of excessive adhesive immediately after pasting a tile
7.7.	Joint insulation
7.7.1.	Preparation of jointing materials
7.7.2.	Distribution of a joint mortar on tiles' surface with use of a rubber putty knife, checking if all joints between tiles are filled out
7.7.3.	Removal of excessive joint mortar with a sponge before it runs dry
7.7.4.	Leaving joints to dry
7.7.5.	Wiping with a cloth

Area 8: Painting interior and exterior walls

8.1.	Coverage of surfaces and protection of objects against paint dropping
8.1.1.	Installation of scaffolds, decks and ladders
8.1.2.	Arrangement of materials protecting against paint drips
8.1.3.	Pasting blending tapes on elements not requiring painting
8.2.	Preparation of the first layer of paint for surfaces not painted before
8.2.1.	Verification if surface is clean and dry
8.2.2.	Selection of a priming paint (solvent or acrylic) according to painting plans
8.2.3.	Dilution of a priming paint according to the manufacturer's instruction
8.2.4.	Distribution of a priming paint and leaving it to dry
8.3.	Preparation of the first layer of distemper for surfaces painted before
8.3.1.	Verification if the surface does not shiver, paint does not go off and no other defects are present
8.3.2.	Scraping of cracked and shivering paint with use of paint scraper
8.3.3.	Dusting and cleaning of walls to provide good adherence
8.3.4.	Fill of defects or joints in the wall and insulation of cracks
8.4.	Painting surfaces with use of distemper
8.4.1.	Thinning a distemper with water, according to the manufacturer's instruction and with consideration of surface absorptiveness
8.4.2.	Application of the first layer of distemper
8.4.3.	Application of a distemper with short brush strokes towards a not painted surface
8.4.4.	Repeated application of a distemper towards the already painted surface to smooth the surface
8.5.	Painting with use of a sponge roll

8.5.1.	Starting from the base layer, choosing darker or contrast colour
8.5.2.	Pouring of paint to a container and painting of the surface with use of a sponge roll
8.6.	Painting with the semi-permanent colour method
8.6.1.	Starting from the base layer, choosing darker or contrast colour
8.6.2.	Application of a semi-permanent colour in various directions with use of a brush, sponge roll, etc.
8.7.	Painting with the template pattern method
8.7.1.	Determination of a pattern's location
8.7.2.	Planning of a pattern's distribution
8.7.3.	Preparation of a template, transfer of a pattern to a template and cut-out of a pattern
8.7.4.	Application of a template on the wall
8.7.5.	Fill of pattern gaps with use of a round brush
8.8.	Painting with the spray paint method
8.8.1.	Determination of a surface to apply the product
8.8.2.	Coverage and protection of the surface to be painted
8.8.3.	Application of paint's layer on the surface
8.8.4.	Determination of the amount of spray paint necessary to cover the wall
8.8.5.	Thinning of paint with water observing the manufacturer's instruction
8.8.6.	Application of a spray painting with use of a sprayer keeping fixed distance from the wall of approx. 25-30 cm

SUBJECT III: DETERMINATION OF A COMMON SET OF ATTRIBUTES (metacompetences)

Area 1: Key attributes

1.1.	Updates knowledge and improves professional skills
1.1.1.	Presents constant motivation to learn and improve own skills
1.1.2.	Presents activity in the case of possible introduction of a change

Area 2: Decision making

2.1.	Foresees results of taken actions
2.1.1.	Deals well with some level of uncertainty
2.1.2.	Identifies premises on which decision should be based
2.1.3.	Responds to appearing problems
2.1.4.	Does not postpone making a decision
2.2.	Is able to bear responsibility for taken actions
2.2.1.	Accepts bearing responsibility and risk

Area 3: Relations

3.1.	Cooperation in a team
3.1.1.	Presents openness and kindness in relation to the others
3.1.2.	Provides people with information and support
3.1.3.	Eagerly adjusts own plans to needs of the others, so that a group accomplishes intended aims
3.1.4.	Notices and analyses points of view and needs of the others
3.1.5.	Considers ideas of the others while developing own concepts

Area 4: Change

4.1.	Flexibility
4.1.1.	Quickly changes a strategy and programs in accordance with changes in the environment
4.1.2.	Presents interest, kindness, adaptability during introduction of new procedures/methods/techniques
4.1.3.	Modifies the approach to solving problems, if circumstances require this

4.1.4.	Is open for revision of own ideas
4.1.5.	Integrates own ideas with concepts of the others
4.1.6.	Is determined at change's proposal and not discouraged by doubts of the others

Area 5: Balance

5.1.	Emotional balance
5.1.1.	Deals well with stressful situations and tension showing self-control and confidence
5.1.2.	Reacts adequately and constructively even in a stressful situation
5.1.3.	Does not show significant mood swings
5.1.4.	Accepts criticism constructively
5.1.5.	Does not lose hope easily
5.1.6.	Does not deny own skills in the case of problem
5.1.7.	Does not attack the others impulsively and aggressively
5.1.8.	Deals with criticism and irony (towards him/her or the others) in the balanced way

Bricklayer-Plasterer

Qualification: Carrying out masonry and plastering works

Area 1: Planning, organisation and coordination of works on the construction site

1.1.	Organisation and preparation of the construction site
1.1.1.	Inspection of the construction site and verification of the course of underground installations
1.1.2.	Determination of the construction site bounds
1.1.3.	Fencing and signage of the construction site
1.1.4.	Construction of internal roads on the construction site
1.1.5.	Organisation of the administrative and social facility
1.1.6.	Supplying the construction site with water and electricity
1.1.7.	Organisation of production stations and warehouses
1.2.	Workplace protection
1.2.1.	Identification of dangers, assessment and control of risk, i.e. Noise, electric safety, road traffic, working at heights, objects falling down, use of electricity and devices, application of hazardous substances (including asbestos)
1.2.2.	Workplace organisation in accordance with occupational health and safety principles, prevention and application of principles of fire protection, environmental protection and giving first aid
1.2.3.	Establishment of procedures in case of accident
1.3.	Installation and de-installation of scaffolds for construction works
1.3.1.	Verification of technical requirements
1.3.2.	Selection of a scaffold which type corresponds with conducted works
1.3.3.	Establishment if proper materials to construct a scaffold have been selected
1.3.4.	Installation of the first level of scaffolds
1.3.5.	Elevation and mounting of scaffold elements
1.3.6.	Arrangement of boards on horizontal trusses creating a platform
1.3.7.	Installation of metal scaffold from systemic elements
1.3.8.	Verification of the correctness of scaffolds' installation
1.3.9.	Protection of scaffolds according to principles of occupational health and safety
1.3.10	De-installation of scaffolds after completion of works

Area 2: Demolition of a building or its part

2.1.	Carrying out demolition works with use of manual devices
2.1.1.	Identification of construction and non-construction elements of buildings to be demolished
2.1.2.	Implementation of demolition with use of manual pneumatic hammers, oxy-acetylene blowpipe and other manual devices
2.1.3.	Disconnection of the building from water and sewage system, gas system and electric system
2.1.4.	Disassembly of systems
2.1.5.	Commencement of a demolition from the roof, then next stories, ending at the ground level
2.1.6.	Grading a demolition of concrete structural elements
2.1.7.	Demolition of floor slabs and ceiling joists, load-bearing and non-load-bearing walls

Area 3: Laying building foundations

3.1.	Preparation of the construction site for foundations
3.1.1.	Verification of the conformity of actual type and condition of the ground with the one adopted in the design
3.1.2.	Verification of the foundation level
3.1.3.	Determination of the foundation course
3.1.4.	Location of pillars and bench marks
3.2.	Laying foundations
3.2.1.	Laying levelling courses
3.2.2.	Setting and control of forms
3.2.3.	Arrangement of reinforcement in ferroconcrete foundations
3.2.4.	Arrangement of concrete mix in forms
3.2.5.	Care about fresh concrete
3.3.	Carrying out insulation works
3.3.1.	Arrangement of insulation on concrete or brick external surfaces
3.3.2.	Arrangement of internal insulation

Area 4: Construction of walls and ferroconcrete structures

4.1.	Determination and preparation of a base to construct walls and ferroconcrete structures
4.1.1.	Unloading, carrying and arranging building materials. Preparation of tools and devices to work
4.1.2.	Determination of a location of basic construction elements of a building according to the architectural design
4.1.3.	Thorough cleaning of the surface
4.1.4.	Protection of the construction site
4.2.	Construction of walls and other elements (pillars, joists, slabs, stairs) with use of forms
4.2.1.	Preparation of forms (casing boards or formwork system)
4.2.2.	Arrangement of reinforcement
4.2.3.	Arrangement of a concrete mix in forms with use of concrete pump
4.2.4.	Condensation of a concrete mix with use of vibrators
4.2.5.	Care about fresh concrete
4.2.6.	De-installation of forms
4.2.7.	Verification of keeping vertical and horizontal lines at various stages of works
4.3.	Construction of walls and structures from prefabricated ferroconcrete elements
4.3.1.	Establishment of installation stages
4.3.2.	Determination of the area where prefabricated elements are elevated
4.3.3.	Installation and removal of temporary reinforcement and support systems
4.3.4.	Location of concrete elements in a place of their integration
4.3.5.	Verification of results of load effect on the existing structure during installation of concrete elements in a destination
4.4.	Construction of reinforced ceilings, stairs and lintels
4.4.1.	Construction of forms for ceilings, stairs and lintels
4.4.2.	Installation of a formwork system
4.4.3.	Construction of flat lintels

4.4.4.	Roof construction
4.4.5.	Installation of ready lintels in type of L and U
4.4.6.	Laying screeds
4.4.7.	Preparation of reinforcements according to the design
4.4.8.	Arrangement of reinforcements in forms
4.4.9.	Construction of walls with reinforcement

Area 5: Construction of walls from small-sized elements

5.1.	Determination and preparation of a site to construct brick walls
5.1.1.	Unloading, carrying and arranging building materials. Preparation of tools and devices to work
5.1.2.	Determination of a location of basic construction elements of a building according to the architectural design
5.1.3.	Thorough cleaning of the surface
5.1.4.	Protection of the construction site
5.2.	Manual and mechanical preparation of a mortar
5.2.1.	Selection of materials needed to prepare a mortar
5.2.2.	Batching weight, volumetric or volumetric-weight components of a mortar
5.2.3.	Mixing a mortar according to current recipe
5.2.4.	Verification of a mortar's consistency
5.2.5.	Application of a mortar according to its purpose
5.3.	Construction of load-bearing and partition walls
5.3.1.	Distribution of the first layer of mortar and its next layers
5.3.2.	Construction of walls from bricks, hollow bricks and blocks
5.3.3.	Construction of standard and cross connections
5.3.4.	Construction of brick connections in walls that cross at a right angle
5.3.5.	Laying bricks in multi-layered walls according to principles of connection
5.3.6.	Connection of bricks at construction of pillars and columns
5.3.7.	Connection of partition walls with load-bearing walls
5.3.8.	Cut and formation of a brick with use of various tools and machinery
5.3.9.	Construction of arches and decorative elements from bricks
5.3.10.	Removal of excessive mortar, control of vertical and horizontal lines
5.3.11.	Installation of doorframes and window frames
5.3.12.	Assessment of the correctness of bricks' connections in the wall

Area 6: Insulation of walls and other surfaces

6.1.	Application of insulation materials (damp-proof, thermal, acoustic)
6.1.1.	Application of insulation coating and roll materials
6.1.2.	Application of a polystyrene and insulation from granulated materials to insulate walls
6.1.3.	Application of concrete block systems with an insert of insulating foam
6.1.4.	Mounting insulation to ceiling walls

Area 7: Plastering interior and exterior walls

7.1.	Base preparation
7.1.1.	Cleaning walls and ceilings of salient mortar lumps
7.1.2.	Drying the surface of gypsum and gypsum concrete bases
7.1.3.	Preparation of equal but rough concrete base through scratching with a chisel
7.1.4.	Mounting a screed increasing the adhesion to bases (beet batt, nets, Finnish shingle)
7.1.5.	Mounting a steel net to metal base and protecting it against rust if plasters are installed
7.1.6.	Directly before plastering - cleaning the base of dust, soot, rust, oily substance and damping the base
7.1.7.	Mounting screeds designating the surface of a face of plaster
7.2.	Installation of traditional plasters
7.2.1.	Application of the first layer (rendering) of a very runny mortar 4-5 mm thick to increase plaster's adhesion
7.2.2.	Application of the second layer of mortar (coating) after slight hardening of rendering and

	damping it with water
7.2.3.	Alignment and smoothening of a mortar
7.2.4.	Verification of the vertical and horizontal line of all angles
7.2.5.	Application of the third thin and runny layer of a mortar (sliding surface) 1-3 mm thick
7.2.6.	Thorough swabbing of a sliding surface with a swat
7.3.	Installation of plasters
7.3.1.	Damping base's surface
7.3.2.	Application of a plaster with use of a swat
7.3.3.	Alignment of a surface with use of a swat or grinder
7.3.4.	Application of subsequent layers
7.3.5.	Alignment of a surface with use of a swat or grinder
7.4.	Installation of external plasters from a plastering mix on bases made of rock wool and styrofoam
7.4.1.	Mounting boards with use of adhesive spots applied on boards
7.4.2.	Drilling in a wall of anchor openings
7.4.3.	Mounting boards with anchors with specially flat heads
7.4.4.	Alignment of a styrofoam's surface with special tools (grates)
7.4.5.	Application of adhesive layers
7.4.6.	Blending a polymer net in adhesive's layer
7.4.7.	Strengthening corners with angles with a net
7.4.8.	Application of subsequent layers of adhesive
7.4.9.	Surface grounding
7.4.10	Application of a plaster with use of a swat
7.4.11	Finishing of a plaster with use of a swat

Area 8: Fence construction

8.1.	Preparation of a site to construct a fence
8.1.1	Determination of a fence's location
8.1.2	Collection of information if electric cables, water and sewage pipes do not run close
8.1.3	Performance of a measurement and indication of a fence's line, as well as signage of pillar's location
8.1.4	Conducting excavations
8.1.5	Storage or transport of output to a proper place
8.2.	Construction of concrete/ brick fences
8.2.1	Establishment of a sequence of works
8.2.2	Determination of the depth of foundations (base) with consideration of ground conditions
8.2.3	Base construction
8.2.4	Alignment, set-back of pillars in concrete base
8.2.5	Construction of concrete and brick walls

SUBJECT III: DETERMINATION OF A COMMON SET OF ATTRIBUTES (metacompetences)

Area 1: Key attributes

1.1.	Updates knowledge and improves professional skills
1.1.1.	Presents constant motivation to learn and improve own skills
1.1.2.	Presents activity in the case of possible introduction of a change

Area 2: Decision making

2.1.	Foresees results of taken actions
2.1.1.	Deals well with some level of uncertainty
2.1.2.	Identifies premises on which decision should be based
2.1.3.	Responds to appearing problems

2.1.4.	Does not postpone making a decision
2.2.	Is able to bear responsibility for taken actions
2.2.1.	Accepts bearing responsibility and risk

Area 3: Relations

3.1.	Cooperation in a team
3.1.1.	Presents openness and kindness in relation to the others
3.1.2.	Provides people with information and support
3.1.3.	Eagerly adjusts own plans to needs of the others, so that a group accomplishes intended aims
3.1.4.	Notices and analyses points of view and needs of the others
3.1.5.	Considers ideas of the others while developing own concepts

Area 4: Change

4.1.	Flexibility
4.1.1.	Quickly changes a strategy and programs in accordance with changes in the environment
4.1.2.	Presents interest, kindness, adaptability during introduction of new procedures/methods/techniques
4.1.3.	Modifies the approach to solving problems, if circumstances require this
4.1.4.	Is open for revision of own ideas
4.1.5.	Integrates own ideas with concepts of the others
4.1.6.	Is determined at change's proposal and not discouraged by doubts of the others

Area 5: Balance

5.1.	Emotional balance
5.1.1.	Deals well with stressful situations and tension showing self-control and confidence
5.1.2.	Reacts adequately and constructively even in a stressful situation
5.1.3.	Does not show significant mood swings
5.1.4.	Accepts criticism constructively
5.1.5.	Does not lose hope easily
5.1.6.	Does not deny own skills in the case of problem
5.1.7.	Does not attack the others impulsively and aggressively
5.1.8.	Deals with criticism and irony (towards him/her or the others) in the balanced way

2. Learning outcomes according to vocational core curriculum corresponding to professional competences required by employers

In the following tables, the learning outcomes, which are recorded in the vocational core curriculum (formal education), and which correspond to professional competences required by employers for the selected occupations and qualifications, are highlighted yellow. The learning outcomes, which are not highlighted, will not be taken into consideration in further work on determining ECVET credits.

Roofer

Qualification: Carrying out roof work

1. Learning outcomes common for all occupations

1.1.	(OHS) Occupational health and safety
1.1.1.	Distinguishes ideas related to occupational health and safety, fire protection, environmental protection and ergonomics
1.1.2.	Distinguishes tasks and authorisations of institutions and authorities operating within the scope of labour and environmental protection
1.1.3.	Determines rights and obligations of an employee and an employer within occupational health and safety
1.1.4.	Foresees risks for human health and life, as well as property and environment related to performance of occupational tasks
1.1.5.	Determines risks related to harmful factors in the work environment
1.1.6.	Determines results of influence of harmful factors on a human body
1.1.7.	Organises a workplace according to valid ergonomics requirements, principles of occupational health and safety, fire protection and environmental protection
1.1.8.	Applies means of individual and collective protection during performance of occupational tasks
1.1.9.	Observes principles of occupational health and safety and applies legal regulations concerning fire and environmental protection
1.1.10	Gives first aid to persons injured in industrial accidents or when their life or health is threatened

1.4.	(PSC) Personal and social competences
1.4.1.	Observes principles of propriety and ethics
1.4.2.	Is creative and consistent in task performance
1.4.3.	Foresees results of taken actions
1.4.4.	Is open to changes
1.4.5.	Can deal with stress
1.4.6.	Updates knowledge and improves professional skills
1.4.7.	Observes professional secrecy
1.4.8.	Is able to bear responsibility for taken actions
1.4.9.	Is able to negotiate terms of agreements
1.4.10	Cooperates in a team

2: Learning outcomes common for occupations within the area of education, constituting professional prerequisites for training in an occupation or a group of occupations LOC (B.C)

2.1.	Recognises types and elements of building objects
2.2.	Distinguishes structures of building objects and technologies of their construction
2.3.	Distinguishes types and elements of building systems
2.4.	Recognises building materials and defines their application
2.5.	Observes the rules of preparing technical drawings
2.6.	Conducts drafts
2.7.	Distinguishes types and elements of documentation applied in the construction industry
2.8.	Distinguishes measuring instruments applied in works
2.9.	Observes the rules of carrying out measurements related to works
2.10.	Recognises elements of a construction site development
2.11.	Distinguishes means of transport applied in the construction industry
2.12.	Observes the rules of transport and storage of building materials
2.13.	Distinguishes types of scaffolds and observes the rules of their assembly, use and disassembly
2.14.	Applies software supporting task performance

3: Learning outcomes relevant to qualifications separated in the Roofer occupation - qualification B.12. Carrying out roof work

3.1.	Installation and demolition of roofing
3.1.1.	Distinguishes types and elements of roof structure
3.1.2.	Distinguishes roofing types
3.1.3.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning roofing construction
3.1.4.	Prepares drawings of roof slopes and roofing elements
3.1.5.	Prepares a bill of quantity related to roofing construction and calculation of costs concerning roofing construction and demolition
3.1.6.	Selects and prepares materials, tools and equipment to roofing construction and demolition
3.1.7.	Installs roofing insulations
3.1.8.	Installs roofing screeds
3.1.9.	Installs roofing in various structures and shapes
3.1.10	Installs roof windows, exits, skylights and devices to collect renewable energy
3.1.11	Carries out works related to repair and demolition of roofing
3.1.12	Assesses quality of roofing's workmanship
3.1.13	Conducts quantity survey of works related to installation of roofing and prepares their clearance

3.2.	Carrying out roof work and roof slope drainage
3.2.1.	Distinguishes elements of roof slope drainage systems
3.2.2.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out roof work and roof slope drainage
3.2.3.	Prepares drawings concerning roof work and elements of roof slope drainage
3.2.4.	Prepares a bill of quantity related to construction and demolition of roof work and roof slope drainage, calculates costs of their performance
3.2.5.	Selects and prepares materials, tools and devices to carry out and demolish roof work and roof slope drainage
3.2.6.	Carries out and installs roof work elements
3.2.7.	Installs elements of roof slope drainage
3.2.8.	Carries out works related to demolition or replacement of roof work and roof slope drainage*
3.2.9.	Assesses quality of the workmanship of roof work and roof slope drainage
3.2.10	Performs a quantity survey related to construction and demolition of roof work and roof slope drainage, prepares clearance of these works

*Not applicable due to different regulations about demolition (ENAIIP)

Fitter and Finisher in the Construction Industry

- Qualifications:
- Drywall system installation
 - Carrying out painting and paper-hanging works
 - Carrying out floor-covering works

1. Learning outcomes common for all occupations

1.1.	(OHS) Occupational health and safety
1.1.1.	Distinguishes ideas related to occupational health and safety, fire protection, environmental protection and ergonomics
1.1.2.	Distinguishes tasks and authorisations of institutions and authorities operating within the scope of labour and environmental protection
1.1.3.	Determines rights and obligations of an employee and an employer within occupational health and safety
1.1.4.	Foresees threats for human health and life, as well as property and environment related to performance of occupational tasks
1.1.5.	Determines risks related to harmful factors in the work environment
1.1.6.	Determines results of influence of harmful factors on a human body
1.1.7.	Organises a workplace according to valid ergonomics requirements, principles of occupational health and safety, fire protection and environmental protection
1.1.8.	Applies means of individual and collective protection during performance of occupational tasks
1.1.9.	Observes principles of occupational health and safety and applies legal regulations concerning fire and environmental protection
1.1.10	Gives first aid to persons injured in industrial accidents or when their life or health is threatened
1.4.	(PSC) Personal and social competences
1.4.1.	Observes principles of propriety and ethics
1.4.2.	Is creative and consistent in task performance
1.4.3.	Foresees results of taken actions
1.4.4.	Is open to changes
1.4.5.	Can deal with stress
1.4.6.	Updates knowledge and improves professional skills
1.4.7.	Observes professional secrecy
1.4.8.	Is able to bear responsibility for taken actions
1.4.9.	Is able to negotiate terms of agreements
1.4.10	Cooperates in a team

2: Learning outcomes common for occupations within the area of education, constituting professional prerequisites for training in an occupation or a group of occupations LOC (B.C)

2.1.	Recognises types and elements of building objects
2.2.	Distinguishes structures of building objects and technologies of their construction
2.3.	Distinguishes types and elements of building systems
2.4.	Recognises building materials and defines their application
2.5.	Observes the rules of preparing technical drawings
2.6.	Conducts drafts
2.7.	Distinguishes types and elements of documentation applied in the construction industry
2.8.	Distinguishes measuring instruments applied in works

2.9.	Observes the rules of carrying out measurements related to works
2.10.	Recognises elements of a construction site development
2.11.	Distinguishes means of transport applied in the construction industry
2.12.	Observes the rules of transport and storage of building materials
2.13.	Distinguishes types of scaffolds and observes the rules of their assembly, use and disassembly
2.14.	Applies software supporting task performance

3: Learning outcomes relevant to qualifications separated in the occupation Fitter and Finisher in the Construction Industry - qualification B.5. Drywall system installation

3.1.	Installation of partition walls, suspended ceilings and housing of roof structures in drywall systems
3.1.1.	Distinguishes types of interior drywall systems
3.1.2.	Distinguishes insulation types of partition walls, suspended ceilings and housing of roof structures, as well as observes rules of their performance
3.1.3.	Uses project documentation, technical specifications of performance and acceptance of works, standards, catalogues and instructions concerning installation of partition walls, suspended ceilings and housing of roof structures in a drywall system
3.1.4.	Prepares a bill of quantity concerning installation of partition walls, suspended ceilings and housing of roof structures, as well as calculates its cost
3.1.5.	Chooses and prepares materials to install partition walls, suspended ceilings and housing of roof structures in a drywall system
3.1.6.	Chooses and prepares tools and equipment to install partition walls, suspended ceilings and housing of roof structures in a drywall system
3.1.7.	Indicates the assembly station of drywall elements
3.1.8.	Chooses technologies of drywall element assembly
3.1.9.	Carries out ancillary works related to installation of partition walls, suspended ceilings and housing of roof structures in a drywall system
3.1.10	Carries out partition walls, suspended ceilings and housing of roof structures in a drywall system
3.1.11	Carries out insulation of partition walls, suspended ceilings and housing of roof structures in a drywall system
3.1.12	Recognises types of damages concerning partition walls, suspended ceilings and housing of roof structures in a drywall system and chooses a way to repair them
3.1.13	Carries out works related to repair of damaged elements of partition walls, suspended ceilings and housing of roof structures in a drywall system
3.1.14	Assesses quality concerning the workmanship of partition walls, suspended ceilings and housing of roof structures in a drywall system
3.1.15	Carries out a quantity survey of works related to installation of partition walls, suspended ceilings and housing of roof structures in a drywall system and prepares clearance of these works
3.2.	Installation of wall coverings and solid flooring in a drywall system
3.2.1.	Distinguishes types of wall coverings and solid flooring in a drywall system
3.2.2.	Distinguishes insulation types of wall coverings and solid flooring applied in a drywall system and defines a way of their installation
3.2.3.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning installation of wall coverings and solid flooring
3.2.4.	Prepares a bill of quantity of works concerning installation of wall coverings and solid flooring in a drywall system and calculates their costs
3.2.5.	Chooses and prepares materials to install wall coverings and solid flooring in a drywall system
3.2.6.	Chooses and prepares tools and equipments to install wall coverings and solid flooring in a drywall system
3.2.7.	Carries out ancillary works related to installation of wall coverings and solid flooring in a drywall system
3.2.8.	Indicates the assembly station of elements of wall coverings and solid flooring in a drywall system
3.2.9.	Prepares the base for installation of wall coverings and solid flooring in a drywall system
3.2.10	Chooses technologies of assembling elements of wall coverings and solid flooring in a drywall system

3.2.11	Assembles elements of wall coverings and solid flooring in a drywall system
3.2.12	Recognises types of damages of elements of wall coverings and chooses a way to repair them
3.2.13	Repairs damaged elements of wall coverings
3.2.14	Assesses quality of works related to installation of wall coverings and solid flooring in a drywall system
3.2.15	Carries out a quantity survey related to installation of wall coverings and solid flooring in a drywall system and prepares clearance of these works

4: Learning outcomes relevant to qualifications separated in the occupation Fitter and Finisher in the Construction Industry - qualification B.6. Carrying out painting and paper-hanging works

4.1.	Carrying out painting work
4.1.1.	Distinguishes types of painting materials, defines their properties and application
4.1.2.	Distinguishes base types and defines ways to prepare them for various kinds of paint coating
4.1.3.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out painting work
4.1.4.	Prepares a bill of quantity concerning painting work and calculates costs of carrying it out
4.1.5.	Chooses and prepares materials to carry out paint coatings in a specific technology
4.1.6.	Chooses technologies of carrying out painting work
4.1.7.	Chooses tools and equipment to carry out painting work
4.1.8.	Prepares the base from different materials to apply paint coatings
4.1.9.	Carries out paint coatings
4.1.10	Decorates paint coatings with various methods
4.1.11	Recognises types of damages of coatings and chooses a way to repair them
4.1.12	Carries out works related to repair and renovation of paint coatings
4.1.13	Assesses quality of carrying out painting work
4.1.14	Carries out a quantity survey of painting work and prepares their clearance
4.2.	Carrying out paper-hanging work
4.2.1.	Distinguishes types of wallpapers, defines their properties and application
4.2.2.	Distinguishes base types and defines ways to prepare them for various kinds of wallpapers
4.2.3.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out paper-hanging work
4.2.4.	Prepares a bill of quantity concerning paper-hanging work and calculates costs of its performance
4.2.5.	Chooses and prepares materials to carry out paper-hanging work
4.2.6.	Chooses tools and equipment to carry out paper-hanging work
4.2.7.	Prepares the base to carry out paper-hanging work
4.2.8.	Carries out paper-hanging work
4.2.9.	Decorates wallpapers with various methods
4.2.10	Recognises types of damages of wallpapers and defines a way to repair them
4.2.11	Carries out works related to repair and renovation of wallpapers
4.2.12	Assesses quality of paper-hanging work
4.2.13	Carries out a quantity survey of paper-hanging work and prepares their clearance

5: Learning outcomes relevant to qualifications separated in the occupation Fitter and Finisher in the Construction Industry - qualification B.7. Carrying out floor-covering works

5.1.	Carrying out floor work
5.1.1.	Distinguishes types of floor materials and defines their properties
5.1.2.	Defines ways to prepare bases for various types of floor
5.1.3.	Distinguishes types of floor insulations and defines ways of their performance
5.1.4.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out floor work
5.1.5.	Prepares a bill of quantity concerning floor work and calculates costs of its performance
5.1.6.	Chooses and prepares materials to carry out floor work

5.1.7.	Chooses tools and equipment to carry out floor work
5.1.8.	Prepares bases to carry out floor from various materials
5.1.9.	Carries out insulating layers of floors
5.1.10	Carries out floor screeds
5.1.11	Installs floors from various materials
5.1.12	Carries out protections for floor surface
5.1.13	Recognises types of damages of floors and defines a way to repair them
5.1.14	Carries out works related to maintenance and repair of floors
5.1.15	Assesses quality of flooring work
5.1.16	Carries out a quantity survey of floor work and prepares its clearance
5.2.	Carrying out covering work
5.2.1.	Distinguishes types of coverings, defines their properties and application
5.2.2.	Distinguishes base types and defines ways of their preparation for coverings
5.2.3.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out covering work
5.2.4.	Prepares a bill of quantity concerning covering work and calculates costs of its performance
5.2.5.	Chooses and prepares materials to carry out covering work
5.2.6.	Chooses tools and equipment to carry out covering work
5.2.7.	Prepares the base to carry out coverings
5.2.8.	Installs coverings from various materials
5.2.9.	Recognises types of damages of coverings and defines a way to repair them
5.2.10	Carries out works related to maintenance and repair of coverings made from various materials
5.2.11	Assesses quality of covering work
5.2.12	Carries out a quantity survey of covering work and prepares its clearance

Bricklayer-Plasterer

Qualification: Carrying out masonry and plastering works

1. Learning outcomes common for all occupations

1.1.	(OHS) Occupational health and safety
1.1.1.	Distinguished ideas related to occupational health and safety, fire protection, environmental protection and ergonomics
1.1.2.	Distinguishes tasks and authorisations of institutions and authorities operating within the scope of labour and environmental protection
1.1.3.	Determines rights and obligations of an employee and an employer within occupational health and safety
1.1.4.	Foresees threats for human health and life, as well as property and environment related to performance of occupational tasks
1.1.5.	Determines risks related to harmful factors in the work environment
1.1.6.	Determines results of influence of harmful factors on a human body
1.1.7.	Organises a workplace according to valid ergonomics requirements, principles of occupational health and safety, fire protection and environmental protection
1.1.8.	Applies means of individual and collective protection during performance of occupational tasks
1.1.9.	Observes principles of occupational health and safety and applies legal regulations concerning fire and environmental protection
1.1.10	Gives first aid to persons injured in industrial accidents or when their life or health is threatened
1.4.	(PSC) Personal and social competences
1.4.1.	Observes principles of propriety and ethics
1.4.2.	Is creative and consistent in task performance
1.4.3.	Foresees results of taken actions
1.4.4.	Is open to changes
1.4.5.	Can deal with stress
1.4.6.	Updates knowledge and improves professional skills
1.4.7.	Observes professional secrecy
1.4.8.	Is able to bear responsibility for taken actions

1.4.9.	Is able to negotiate terms of agreements
1.4.10	Cooperates in a team

2: Learning outcomes common for occupations within the area of education, constituting professional prerequisites for training in an occupation or a group of occupations LOC (B.C)

2.1.	Recognises types and elements of building objects
2.2.	Distinguishes structures of building objects and technologies of their construction
2.3.	Distinguishes types and elements of building systems
2.4.	Recognises building materials and defines their application
2.5.	Observes the rules of preparing technical drawings
2.6.	Conducts drafts
2.7.	Distinguishes types and elements of documentation applied in the construction industry
2.8.	Distinguished measuring instruments applied in works
2.9.	Observes the rules of carrying out measurements related to works
2.10.	Recognises elements of a construction site development
2.11.	Distinguishes means of transport applied in the construction industry
2.12.	Observes the rules of transport and storage of building materials
2.13.	Distinguishes types of scaffolds and observes the rules of their assembly, use and disassembly
2.14.	Applies software supporting task performance

**3: Learning outcomes relevant to qualifications separated in the Bricklayer-Plasterer occupation - qualification
B.18. Carrying out masonry and plastering works**

3.1.	Carrying out grouts, mortars and concrete mixes
3.1.1.	Distinguishes types of grouts and mortars, defines their properties and application
3.1.2.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out grouts, mortars and concrete mixes
3.1.3.	Chooses contents of grouts, mortars and concrete mixes
3.1.4.	Conducts a bill of quantity of works related to carrying out grouts, mortars and concrete mixes and calculates costs of their performance
3.1.5.	Chooses tools and equipment to carry out grouts, mortars and concrete mixes
3.1.6.	Prepares contents of grouts, mortars and concrete mixes
3.1.7.	Carries out grouts, mortars and concrete mixes in accordance with a recipe
3.1.8.	Assesses quality of the workmanship of grouts, mortars and concrete mixes
3.1.9.	Conducts a quantity survey related to carrying out grouts, mortars and concrete mixes and prepares clearance of these works
3.2.	Carrying out brick building structures
3.2.1.	Distinguishes types of brick building structures
3.2.2.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out brick building structures
3.2.3.	Recognises types of brick bonds in walls
3.2.4.	Distinguishes types of building insulations and defines ways of their performance
3.2.5.	Selects and prepares materials to carry out brick building structures
3.2.6.	Chooses tools and equipment to carry out brick building structure
3.2.7.	Conducts a bill of quantity concerning works related to carrying out brick building structures and calculates costs of their performance
3.2.8.	Indicates location of brick building structure*
3.2.9.	Carries out brick walls, ceilings, lintels, roof, pillars, piers and chimneys
3.2.10	Carries out wall pointing and facing*
3.2.11	Carries out earthwork, insulation works, ancillary concrete and reinforcement works related to carrying out brick building structures
3.2.12	Assesses quality of carrying out masonry work
3.2.13	Conducts a quantity survey of works related to carrying out brick building structures and prepares their clearance

3.3.	Carrying out plasters
3.3.1.	Distinguishes types of plasters
3.3.2.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out plasters
3.3.3.	Chooses and prepares materials to carry out internal and external plasters
3.3.4.	Chooses tools and equipment to carry out internal and external plasters
3.3.5.	Conducts a bill of quantity concerning works related to carrying out internal and external plasters and calculates costs of their clearance
3.3.6.	Prepares the base to carry out internal and external plasters
3.3.7.	Carries out internal and external plasters
3.3.8.	Takes actions related to finishing plastered surfaces and mounting ventilation grilles and other elements
3.3.9.	Recognises damage types of internal and external plasters and chooses ways of their repair
3.3.10	Repairs internal and external plasters
3.3.11	Assesses quality of carrying out plastering work
3.3.12	Conducts a quantity survey related to carrying out internal and external works and prepares clearance of these works
3.4.	Carrying out repairs and demolition of brick building structures**
3.4.1.	Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out repair and demolition works of brick building structures
3.4.2.	Selects and prepares materials to carry out repair of brick building structures
3.4.3.	Conducts a bill of quantity concerning works related to carrying out repair and demolition of brick building structures and calculates costs of their performance
3.4.4.	Chooses tools and equipment to carry out works related to repair and demolition of brick building structures
3.4.5.	Carries out masonry works related to repair of brick building structures
3.4.6.	Carries out demolition works of brick building structures
3.4.7.	Assesses quality of repair and demolition works of brick building structures
3.4.8.	Conducts a quantity survey of works related to carrying out repair and demolition of brick building structures and prepares their clearance

*ambiguous (ENAIP)

**Not applicable due to different regulations about demolition (ENAIP)

3. Learning outcomes related to professional competences, occupations and qualifications in formal, non-formal and informal education

The tables below comprise the results of WP3 task in the form of isolated learning outcomes units in formal, non-formal and informal education as well as accompanying sets of skills and knowledge, personal and social competences. At the same time they demonstrate work process descriptors: key activity and component activity required by employers in the labour markets in Poland, Switzerland and Italy. The work process descriptors are taken from the project MapCom and assigned to the professions by means of expert method.

The column "skills and knowledge" combines two complementary categories: "skills" and "knowledge" for the reason that it is included in the Polish core curriculum for vocational education. This does not conflict with the understanding of the essence of learning outcomes – in the work process skills occurs always together with the appropriate knowledge.

Referring to what was agreed at the Steering Committee meeting of ECVET-BUD project, held on 9 October 2013, the learning outcomes units, whose content is considered too extensive, are to be divided into smaller parts called "components of learning outcomes". Components of learning outcomes relate to component activities. The separate components of learning outcomes have been assigned to the relevant content of the core curriculum for vocational formal education.

The tables below comprise the results of WP3 task in the form of isolated learning outcomes units in non-formal and informal education as well as accompanying sets of skills and knowledge, personal and social competences. It was assumed that the units and elements of learning outcomes in non-formal and informal education will be the same as the key competences and component competences in the Mapcom model. Accordingly the sets of skills and knowledge have been identified with the elementary competences in the Mapcom model and personal and social competences have been identified with attributes. In other words, the sets shown below are not included in formal education and can be educated only in the forms of non-formal and informal education.

3.1. Occupation: Roofer 712101

3.1.1. Qualification B.12. Carrying out roof work¹

FORMAL EDUCATION

Table 1a.

WORK PROCESS DESCRIPTORS		COMMON SET OF LEARNING OUTCOMES		
KEY ACTIVITY	COMPONENT ACTIVITY	UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Demolition of a building or its part	Conducting works related to renovation and demolition of roofing	Installation and demolition of roofing	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of tasks professional – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection

¹ The letter “B” means the area of education: “construction (B)”

				<ul style="list-style-type: none"> – Give first aid to victims of accidents at work
			Preparing for the installation and demolition of roofing	<ul style="list-style-type: none"> – Distinguishes types and elements of roof structure – Distinguishes roofing types – Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning roofing construction – Selects and prepares materials, tools and equipment to roofing construction and demolition
Roofing construction	Roofing insulation construction		Conducting works related to renovation and demolition of roofing	<ul style="list-style-type: none"> – Carries out works related to repair and demolition of roofing – Assesses quality of roofing's workmanship
	Construction of roofing in various structures and shapes		Roofing insulation construction	<ul style="list-style-type: none"> – Installs roofing insulations – Assesses quality of roofing's workmanship
			Construction of roofing in various structures and shapes	<ul style="list-style-type: none"> – Installs roofing screeds – Installs roofing in various structures and shapes – Assesses quality of roofing's workmanship

ATTRIBUTES	PERSONAL AND SOCIAL COMPETENCES
<ul style="list-style-type: none"> – Updates knowledge and improves professional skills – Foresees results of taken actions 	<ul style="list-style-type: none"> – Observes principles of propriety and ethics – Is creative and consistent in task performance – Foresees results of taken actions

<ul style="list-style-type: none"> - Is able to bear responsibility for taken actions - Cooperation in a team - Flexibility - Emotional balance 	<ul style="list-style-type: none"> - Is open to changes - Can deal with stress - Updates knowledge and improves professional skills - Observes professional secrecy - Is able to bear responsibility for taken actions - Is able to negotiate terms of agreements - Cooperates in a team
---	---

NON-FORMAL AND INFORMAL EDUCATION

Table 1b.

WORK PROCESS DESCRIPTORS		
UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Carrying out roof work and roof slope drainage	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> - Foresees risks to human health and life and property and the environment associated with execution of tasks professional - Identify the hazards associated with the presence of harmful environmental factors in the workplace - Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection - Used protection measures of individual and collective in the performance of tasks professional - Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection - Give first aid to victims of accidents at work

	Preparation of drawings concerning roof work and elements of roof slope drainage	<ul style="list-style-type: none"> – Use of project documentation, technical specifications concerning carrying out and accepting works, standards and instructions concerning roof work and roof slope drainage – Preparation of drawings and drafts concerning roof work and elements of roof slope drainage – Preparation of a bill of quantities related to construction and demolition of roof work and roof slope drainage, calculation of costs of their carrying out – Application of software supporting roof tasks performance – Carrying out works related to preparation of a sheet metal to process it – Carrying out and installing roof works – Mounting roof works to specific building components
	Selection and preparation of materials, tools and devices to carry out roof work and roof slope drainage	<ul style="list-style-type: none"> – Differentiation and selection of elements of roof slope drainage systems – Selection of materials to carry out roof work and roof slope drainage – Preparation of materials to construct roofing undercoats – Selection of roof windows, skylights and exits – Use of roof work devices and tools according to operating rules
	Installation of roof slope drainage elements	<ul style="list-style-type: none"> – Performance of a quantity survey related to construction and demolition of roof work and roof slope drainage, preparation of works clearance – Fitting elements of roof slope drainage – Fitting gutters, rainwater pipes and roof drains – Quality assessment of the workmanship of roof work and roof slope drainage

PERSONAL AND SOCIAL COMPETENCES	<ul style="list-style-type: none"> – Updates knowledge and improves professional skills – Foresees results of taken actions – Is able to bear responsibility for taken actions
--	---

- | | |
|--|---|
| | <ul style="list-style-type: none">- Cooperation in a team- Flexibility- Emotional balance |
|--|---|

3.2. Occupation: Fitter and Finisher in the Construction Industry 712905

3.2.1. Qualification B.5. Drywall system installation

FORMAL EDUCATION

Table 2a.

WORK PROCESS DESCRIPTORS		COMMON SET OF LEARNING OUTCOMES		
KEY ACTIVITY	COMPONENT ACTIVITY	UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Installation of plaster-boards	Recognition of materials applied in drywall partition systems	Installation of partition walls, suspended ceilings and housing of roof structures in drywall systems	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of tasks professional

			<ul style="list-style-type: none"> – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
		Preparing for the installation of partition walls, suspended ceilings and housing of roof structures in drywall systems	<ul style="list-style-type: none"> – Distinguishes types of interior drywall systems – Distinguishes insulation types of partition walls, suspended ceilings and housing of roof structures, as well as observes rules of their performance – Uses project documentation, technical specifications of performance and acceptance of works, standards, catalogues and instructions concerning installation of partition walls, suspended ceilings and housing of roof structures in a drywall system – Chooses and prepares materials to install partition walls, suspended ceilings and housing of roof structures in a drywall system – Chooses and prepares tools and equipment to install partition walls, suspended ceilings and housing of roof structures in a drywall system – Indicates the assembly station of drywall elements – Chooses technologies of drywall element assembly
	Installation of partition wall systems	Installation of partition wall in a drywall system	<ul style="list-style-type: none"> – Carries out ancillary works related to installation of partition walls in a drywall system – Carries out partition walls in a drywall system – Carries out insulation of partition walls in a drywall system – Recognises types of damages concerning partition walls in a drywall system and chooses a way to repair them

				<ul style="list-style-type: none"> – Carries out works related to repair of damaged elements of partition walls in a drywall system – Assesses quality concerning the workmanship of partition walls in a drywall system
	Installation of suspended ceiling systems		Installation of suspended ceilings and housing of roof structures in a drywall system	<ul style="list-style-type: none"> – Carries out ancillary works related to installation of suspended ceilings and housing of roof structures in a drywall system – Carries out suspended ceilings and housing of roof structures in a drywall system – Carries out insulation of suspended ceilings and housing of roof structures in a drywall system – Recognises types of damages concerning suspended ceilings and housing of roof structures in a drywall system and chooses a way to repair them – Carries out works related to repair of damaged elements of suspended ceilings and housing of roof structures in a drywall system – Assesses quality concerning the workmanship of suspended ceilings and housing of roof structures in a drywall system

ATTRIBUTES	PERSONAL AND SOCIAL COMPETENCES
<ul style="list-style-type: none"> – Updates knowledge and improves professional skills – Foresees results of taken actions – Is able to bear responsibility for taken actions – Cooperation in a team 	<ul style="list-style-type: none"> – Observes principles of propriety and ethics – Is creative and consistent in task performance – Foresees results of taken actions – Is open to changes – Can deal with stress – Updates knowledge and improves professional skills – Observes professional secrecy

- Flexibility
- Emotional balance

- Is able to bear responsibility for taken actions
- Is able to negotiate terms of agreements
- Cooperates in a team

NON-FORMAL AND INFORMAL EDUCATION

Table 2b.

WORK PROCESS DESCRIPTORS		
UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Installation of plasterboards	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> - Foresees risks to human health and life and property and the environment associated with execution of tasks professional - Identify the hazards associated with the presence of harmful environmental factors in the workplace - Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection - Used protection measures of individual and collective in the performance of tasks professional - Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection - Give first aid to victims of accidents at work
	Installation of wall covering systems	<ul style="list-style-type: none"> - Preparation of a wall covering assembly stand - Preparation of a storage location for materials to install wall coverings - Preparation of a drywall base - Selection of proper drywall

		<ul style="list-style-type: none"> – Preparation and cut of boards to install drywall – Installation of drywall on masonries (direct) – Designation of a drywall plane – Designation of a place to mount covering holders on wall sections – Selection and assembly of sections to install drywall – Arrangement of insulation layers – Arrangement of coverings on wall sections – Installation of coverings to hide installations – Carrying out finishing works such as spackling, external corners treatment, cleaning boards – Application of principles of occupational health and safety, fire protection and environmental protection
--	--	---

<p>PERSONAL AND SOCIAL COMPETENCES</p>	<ul style="list-style-type: none"> – Updates knowledge and improves professional skills – Foresees results of taken actions – Is able to bear responsibility for taken actions – Cooperation in a team – Flexibility – Emotional balance
---	--

3.2.2. Qualification B.6. Carrying out painting and paper-hanging works

FORMAL EDUCATION

Table 3a.

WORK PROCESS DESCRIPTORS		COMMON SET OF LEARNING OUTCOMES		
KEY ACTIVITY	COMPONENT ACTIVITY	UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Painting interior and exterior walls	Coverage of surfaces and protection of objects against paint dropping	Carrying out painting work	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of tasks professional – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work

		Preparing for the carrying out painting work	<ul style="list-style-type: none"> – Distinguishes types of painting materials, defines their properties and application – Distinguishes base types and defines ways to prepare them for various kinds of paint coating – Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out painting work – Chooses and prepares materials to carry out paint coatings in a specific technology – Chooses technologies of carrying out painting work – Chooses tools and equipment to carry out painting work
	Preparation of the first layer of paint for surfaces not painted before	Coverage of surfaces and protection of objects against paint dropping and prepares the base from different materials to apply paint coatings	<ul style="list-style-type: none"> – Prepares the base from different materials to apply paint coatings – Assesses quality of carrying out painting work
	Preparation of the first layer of distemper for surfaces painted before	Preparation of the first layer of paint (priming paint) for surfaces not painted before	<ul style="list-style-type: none"> – Carries out paint coatings – Assesses quality of carrying out painting work
	Painting surfaces with use of distemper	Painting surfaces with using various techniques (distemper, sponge roll, semi-	<ul style="list-style-type: none"> – Carries out paint coatings – Decorates paint coatings with various methods – Assesses quality of carrying out painting work
	Painting with use of a sponge roll		

	Painting with the semi-permanent colour method		permanent colour method, template pattern method, spray paint method)	
	Painting with the template pattern method			
	Painting with the spray paint method		Repair and renovation of paint coatings	

ATTRIBUTES	PERSONAL AND SOCIAL COMPETENCES
<ul style="list-style-type: none"> – Updates knowledge and improves professional skills – Foresees results of taken actions – Is able to bear responsibility for taken actions – Cooperation in a team – Flexibility – Emotional balance 	<ul style="list-style-type: none"> – Observes principles of propriety and ethics – Is creative and consistent in task performance – Foresees results of taken actions – Is open to changes – Can deal with stress – Updates knowledge and improves professional skills – Observes professional secrecy – Is able to bear responsibility for taken actions – Is able to negotiate terms of agreements – Cooperates in a team

NON-FORMAL AND INFORMAL EDUCATION

Table 3b.

WORK PROCESS DESCRIPTORS		
UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Painting wooden and metal elements and surfaces	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of tasks professional – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
	Covering surfaces and other objects	<ul style="list-style-type: none"> – Installation of scaffolds, decks and ladders – Arrangement of materials protecting workstation against paint dropping – Pasting of blending tapes on surface parts that do not require painting (edges, doorframes, windows, etc.)
	Preparation of the first layer of paint to paint interior and exterior new not painted wooden surfaces	<ul style="list-style-type: none"> – Verification if no oily spots or resin rests are present on a painted surface – Application of a layer of flat colour on the surface – Grinding of the surface with a sanding sheet of medium category of granulation

		<ul style="list-style-type: none"> - Application and smoothening of an undercoat mix - Application of a layer of flat colour
	Preparation of the first layer of paint to paint interior and exterior painted wooden surfaces	<ul style="list-style-type: none"> - Verification if the surface does not shiver, paint does not go off or other defects do not appear - Scraping of shivering or cracked paint with use of paint scraper or electric grinder - Application of a layer of flat colour on the sanded surface - Application of an undercoat mix on the sanded surface - Application of a flat colour's layer on the surface impregnated with an undercoat mix
	Preparation of the first layer of paint on previously not painted metal surface	<ul style="list-style-type: none"> - Grinding of the surface to remove rust - Thorough cleaning of the surface to remove oily rests - Application of the antirust priming paint's layer - Application of the metal priming paint's layer
	Preparation of the first layer of old painted metal surface	<ul style="list-style-type: none"> - Verification if the surface does not shiver, paint does not go off, there is no rust or other defects - Grinding of the surface with brushing machines or grinders - Application of metal priming paint on ground surfaces - Application of the joint mix on ground surfaces - Grinding of the undercoat mix surface with a sanding sheet of medium category of granulation - Application of a priming paint after undercoat mix dries
	Painting metal and wooden surfaces	<ul style="list-style-type: none"> - Application of the first layer of flat colour - Grinding of the surface with fine sanding sheet - Application of the second layer of flat colour or light paint

PERSONAL AND SOCIAL COMPETENCES	<ul style="list-style-type: none"> - Updates knowledge and improves professional skills - Foresees results of taken actions - Is able to bear responsibility for taken actions - Cooperation in a team - Flexibility - Emotional balance
--	--

3.2.3. Qualification B.7. Carrying out floor-covering works

FORMAL EDUCATION

Table 4a.

WORK PROCESS DESCRIPTORS		COMMON SET OF LEARNING OUTCOMES		
KEY ACTIVITY	COMPONENT ACTIVITY	UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Installation of floor screed	Preparation of a floor screed site	Carrying out floor work	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> - Foresees risks to human health and life and property and the environment associated with execution of tasks professional

			<ul style="list-style-type: none"> – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of tasks professional – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
		Preparing for the carrying out floor work	<ul style="list-style-type: none"> – Distinguishes types of floor materials and defines their properties – Defines ways to prepare bases for various types of floor – Distinguishes types of floor insulations and defines ways of their performance – Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out floor work – Chooses and prepares materials to carry out floor work – Chooses tools and equipment to carry out floor work
	Distribution of a concrete mix	Preparation of the surface and insulating layers to complete floors of various materials	<ul style="list-style-type: none"> – Prepares bases to carry out floor from various materials – Carries out insulating layers of floors
	Installation of prefabricated screed from	Installation of floor screed	<ul style="list-style-type: none"> – Carries out floor screeds – Assesses quality of flooring work

	concrete slabs and plasterboards			
	Installation of a screed from self-levelling mortar			
Installation of wooden floors	Arrangement of floors from mosaic boards		Installation wooden floors	<ul style="list-style-type: none"> – Installation floors from wooden – Carries out protections for floor surface – Recognizes types of damages of floors and defines a way to repair them – Carries out works related to maintenance and repair of floors – Assesses quality of flooring work
	Installation of floors from boards			
	Installation of floors from coniferous wood boards and glued laminated boards			
Installation of polymer floorings	Installation of floors from plastic carpets		Installation of polymer floors	<ul style="list-style-type: none"> – Installation polymer floors – Carries out protections for floor surface – Recognizes types of damages of floors and defines a way to repair them
	Installation of floors from fitted carpets			
	Installation of floors from resin and mineral compositions			

				<ul style="list-style-type: none"> – Carries out works related to maintenance and repair of floors – Assesses quality of flooring work
Wall and floor tile laying	Removal of existing tiles from floors and walls		Floor tile laying	<ul style="list-style-type: none"> – Installation of floor tiles – Carries out protections for floor surface – Recognizes types of damages of floors and defines a way to repair them – Carries out works related to maintenance and repair of floors – Assesses quality of flooring work
	Planning and preparation to lay tiles			
	Laying tiles on a mortar			
	Laying floor tiles with use of an adhesive			
	Laying wall tiles with use of a mortar			
	Laying wall tiles with use of an adhesive			
	Joint insulation			
Installation of coverings	Base preparation	Carrying out covering work	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection

				<ul style="list-style-type: none"> – Used protection measures of individual and collective in the performance of tasks professional – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
			Preparing for the carrying out covering work	<ul style="list-style-type: none"> – Distinguishes types of coverings, defines their properties and application – Distinguishes base types and defines ways of their preparation for coverings – Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out covering work – Chooses and prepares materials to carry out covering work – Chooses tools and equipment to carry out covering work
	Installation of stone coverings		Preparing the ground for the covering work	<ul style="list-style-type: none"> – Prepares the base to carry out coverings – Assesses quality of covering work
	Installation of wood coverings		Installation of coverings (tile, stone, Wood, boards, slats, polimer spatial elements)	<ul style="list-style-type: none"> – Installs coverings from various materials (tile, stone, Wood, boards, slats, polimer spatial elements) – Recognises types of damages of coverings and defines a way to repair them – Carries out works related to maintenance and repair of coverings made from various materials – Assesses quality of covering work
	Installation of coverings from boards, slats and polymer spatial elements			

ATTRIBUTES	PERSONAL AND SOCIAL COMPETENCES
<ul style="list-style-type: none"> – Updates knowledge and improves professional skills – Foresees results of taken actions – Is able to bear responsibility for taken actions – Cooperation in a team – Flexibility – Emotional balance 	<ul style="list-style-type: none"> – Observes principles of propriety and ethics – Is creative and consistent in task performance – Foresees results of taken actions – Is open to changes – Can deal with stress – Updates knowledge and improves professional skills – Observes professional secrecy – Is able to bear responsibility for taken actions – Is able to negotiate terms of agreements – Cooperates in a team

NON-FORMAL AND INFORMAL EDUCATION

- not identified non-formal and informal learning outcomes (learning outcomes are present in the formal system)

3.3. Occupation: Bricklayer-Plasterer 711204

3.3.1. Qualification B.18. Carrying out masonry and plastering works

FORMAL EDUCATION

Table 5a.

WORK PROCESS DESCRIPTORS		COMMON SET OF LEARNING OUTCOMES		
KEY ACTIVITY	COMPONENT ACTIVITY	UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Construction of walls from small-sized elements	Manual and mechanical preparation of a mortar	Carrying out grouts, mortars and concrete mixes	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of tasks professional

			<ul style="list-style-type: none"> – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
		Preparing for the carrying out grouts, mortars and concrete mixes	<ul style="list-style-type: none"> – Distinguishes types of grouts and mortars, defines their properties and application – Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out grouts, mortars and concrete mixes – Chooses contents of grouts, mortars and concrete mixes – Chooses tools and equipment to carry out grouts, mortars and concrete mixes
		Manual and mechanical preparation grouts, mortars and concrete mixes	<ul style="list-style-type: none"> – Prepares contents of grouts, mortars and concrete mixes – Carries out grouts, mortars and concrete mixes in accordance with a recipe – Assesses quality of the workmanship of grouts, mortars and concrete mixes
Determination and preparation of a site to construct brick walls	Carrying out brick building structures	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of tasks professional

				<ul style="list-style-type: none"> – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
			Preparing for the carrying out brick building structures	<ul style="list-style-type: none"> – Distinguishes types of brick building structures – Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out brick building structures – Recognizes types of brick bonds in walls – Distinguishes types of building insulations and defines ways of their performance – Selects and prepares materials to carry out brick building structures – Chooses tools and equipment to carry out brick building structure
	Construction of load-bearing and partition walls		Determination and preparation of a site to construct brick walls, insulation of walls and other surfaces	<ul style="list-style-type: none"> – Carries out earthwork, insulation works, ancillary concrete and reinforcement works related to carrying out brick building structures – Assesses quality of carrying out masonry work
Insulation of walls and other surfaces	Application of insulation materials (damp-proof, thermal, acoustic)		Construction of load-bearing, partition walls and other elements of the building	<ul style="list-style-type: none"> – Carries out brick walls, ceilings, lintels, roof, pillars, piers and chimneys – Carries out wall pointing and facing – Assesses quality of carrying out masonry work
Plastering interior and	Base preparation	Carrying out plasters	Respecting Safety&Health rules	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks

exterior walls	Installation of traditional plasters		in regard to self and co-workers	<p>professional</p> <ul style="list-style-type: none"> – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of tasks professional – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
			Preparing for the carrying out plasters	<ul style="list-style-type: none"> – Distinguishes types of plasters – Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out plasters – Chooses and prepares materials to carry out internal and external plasters – Recognises damage types of internal and external plasters and chooses ways of their repair – Chooses tools and equipment to carry out internal and external plasters
	Installation of gypsum plasters		Installation of traditional plasters	<ul style="list-style-type: none"> – Prepares the base to carry out internal and external traditional plasters – Carries out internal and external traditional plasters – Takes actions related to finishing plastered surfaces and mounting ventilation grilles and other elements – Repairs internal and external traditional plasters

	Installation of external plasters from a plastering mix on bases made of rock wool and styrofoam			<ul style="list-style-type: none"> - Assesses quality of carrying out plastering work
			Installation of gypsum plasters	<ul style="list-style-type: none"> - Prepares the base to carry out internal gypsum plasters - Carries out internal gypsum plasters - Takes actions related to finishing plastered surfaces and mounting ventilation grilles and other elements - Repairs internal gypsum plasters - Assesses quality of carrying out plastering work
			Installation of external plasters from a plastering mix on bases made of rock wool and styrofoam	<ul style="list-style-type: none"> - Prepares the base to carry out external plasters from a plastering mix on bases made of rock wool and styrofoam - Carries out external plasters from a plastering mix on bases made of rock wool and styrofoam - Takes actions related to finishing plastered surfaces and mounting ventilation grilles and other elements - Repairs external plasters from a plastering mix on bases made of rock wool and styrofoam - Assesses quality of carrying out plastering work

ATTRIBUTES	PERSONAL AND SOCIAL COMPETENCES
<ul style="list-style-type: none"> - Updates knowledge and improves professional skills - Foresees results of taken actions - Is able to bear responsibility for taken actions - Cooperation in a team - Flexibility - Emotional balance 	<ul style="list-style-type: none"> - Observes principles of propriety and ethics - Is creative and consistent in task performance - Foresees results of taken actions - Is open to changes - Can deal with stress - Updates knowledge and improves professional skills - Observes professional secrecy - Is able to bear responsibility for taken actions

- Is able to negotiate terms of agreements
- Cooperates in a team

NON-FORMAL AND INFORMAL EDUCATION

Table 5b.

WORK PROCESS DESCRIPTORS		
UNITS OF LEARNING OUTCOMES	COMPONENT OF LEARNING OUTCOMES	SKILLS AND KNOWLEDGE
Planning, organisation and coordination of works on the construction site	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> - Foresees risks to human health and life and property and the environment associated with execution of tasks professional - Identify the hazards associated with the presence of harmful environmental factors in the workplace - Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection - Used protection measures of individual and collective in the performance of tasks professional - Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection - Give first aid to victims of accidents at work
	Organisation and preparation of the construction site	<ul style="list-style-type: none"> - Inspection of the construction site and verification of the course of underground installations - Determination of the construction site bounds - Fencing and signage of the construction site - Construction of internal roads on the construction site

		<ul style="list-style-type: none"> – Organisation of the administrative and social facility – Supplying the construction site with water and electricity – Organisation of production stations and warehouses
	Workplace protection	<ul style="list-style-type: none"> – Identification of dangers, assessment and control of risk, i.e. Noise, electric safety, road traffic, working at heights, objects falling down, use of electricity and devices, application of hazardous substances (including asbestos) – Workplace organisation in accordance with occupational health and safety principles, prevention and application of principles of fire protection, environmental protection and giving first aid – Establishment of procedures in case of accident
	Installation and de-installation of scaffolds for construction works	<ul style="list-style-type: none"> – Verification of technical requirements – Selection of a scaffold which type corresponds with conducted works – Establishment if proper materials to construct a scaffold have been selected – Installation of the first level of scaffolds – Elevation and mounting of scaffold elements – Arrangement of boards on horizontal trusses creating a platform – Installation of metal scaffold from systemic elements – Verification of the correctness of scaffolds' installation – Protection of scaffolds according to principles of occupational health and safety – De-installation of scaffolds after completion of works
Demolition of a building or its part Laying building foundations	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of

		<p>ergonomics, safety regulations and hygiene, fire protection and environmental protection</p> <ul style="list-style-type: none"> – Used protection measures of individual and collective in the performance of tasks professional – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
	Carrying out demolition works with use of manual devices	<ul style="list-style-type: none"> – Identification of construction and non-construction elements of buildings to be demolished – Implementation of demolition with use of manual pneumatic hammers, oxy-acetylene blowpipe and other manual devices – Disconnection of the building from water and sewage system, gas system and electric system – Disassembly of systems – Commencement of a demolition from the roof, then next stories, ending at the ground level – Grading a demolition of concrete structural elements – Demolition of floor slabs and ceiling joists, load-bearing and non-load-bearing walls
	Preparation of the construction site for foundations	<ul style="list-style-type: none"> – Verification of the conformity of actual type and condition of the ground with the one adopted in the design – Verification of the foundation level – Determination of the foundation course – Location of pillars and bench marks
	Laying foundations	<ul style="list-style-type: none"> – Laying levelling courses – Setting and control of forms – Arrangement of reinforcement in ferroconcrete foundations

		<ul style="list-style-type: none"> - Arrangement of concrete mix in forms - Care about fresh concrete
	Carrying out insulation works	<ul style="list-style-type: none"> - Arrangement of insulation on concrete or brick external surfaces - Arrangement of internal insulation
Construction of walls and ferroconcrete structures	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> - Foresees risks to human health and life and property and the environment associated with execution of tasks professional - Identify the hazards associated with the presence of harmful environmental factors in the workplace - Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection - Used protection measures of individual and collective in the performance of tasks professional - Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection - Give first aid to victims of accidents at work
	Determination and preparation of a base to construct walls and ferroconcrete structures	<ul style="list-style-type: none"> - Unloading, carrying and arranging building materials. Preparation of tools and devices to work - Determination of a location of basic construction elements of a building according to the architectural design - Thorough cleaning of the surface - Protection of the construction site
	Construction of walls and other elements (pillars, joists, slabs, stairs) with use of forms	<ul style="list-style-type: none"> - Preparation of forms (casing boards or formwork system) - Arrangement of reinforcement - Arrangement of a concrete mix in forms with use of concrete pump - Condensation of a concrete mix with use of vibrators - Care about fresh concrete

		<ul style="list-style-type: none"> – De-installation of forms – Verification of keeping vertical and horizontal lines at various stages of works
	Construction of walls and structures from prefabricated ferroconcrete elements	<ul style="list-style-type: none"> – Establishment of installation stages – Determination of the area where prefabricated elements are elevated – Installation and removal of temporary reinforcement and support systems – Location of concrete elements in a place of their integration – Verification of results of load effect on the existing structure during installation of concrete elements in a destination
	Construction of reinforced ceilings, stairs and lintels	<ul style="list-style-type: none"> – Construction of forms for ceilings, stairs and lintels – Installation of a formwork system – Construction of flat lintels – Roof construction – Installation of ready lintels in type of L and U – Laying screeds – Preparation of reinforcements according to the design – Arrangement of reinforcements in forms – Construction of walls with reinforcement
Fence construction	Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> – Foresees risks to human health and life and property and the environment associated with execution of tasks professional – Identify the hazards associated with the presence of harmful environmental factors in the workplace – Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection – Used protection measures of individual and collective in the performance of

		<p>tasks professional</p> <ul style="list-style-type: none"> – Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection – Give first aid to victims of accidents at work
	Preparation of a site to construct a fence	<ul style="list-style-type: none"> – Determination of a fence's location – Collection of information if electric cables, water and sewage pipes do not run close – Performance of a measurement and indication of a fence's line, as well as signage of pillar's location – Conducting excavations – Storage or transport of output to a proper place
	Construction of concrete/brick fences	<ul style="list-style-type: none"> – Determination of the depth of foundations (base) with consideration of ground conditions – Base construction – Alignment, set-back of pillars in concrete base – Construction of concrete and brick walls

PERSONAL AND SOCIAL COMPETENCES	<ul style="list-style-type: none"> – Updates knowledge and improves professional skills – Foresees results of taken actions – Is able to bear responsibility for taken actions – Cooperation in a team – Flexibility – Emotional balance
--	--

4. Presentation of units of learning outcomes as a modules

Below is shown units of learning outcomes in the form of modules with a fixed structure. Each module is defined by the name of the profession and the qualifications and assigned to the type of learning (formal or non-formal and informal). In this way, we used the approach of the project M-ECVET-S (Source of inspiration: M-ECVET-S: Development and test of a modular system in the field of professional further training. Grant Agreement Number: DE/09/LLP-LdV/TOI/147251. Final Brochure: Description of the products, 28.10.2011).

Positions: "workload", "Procedures, methods and criteria for assessment of these learning outcome", "ECVET points" at this stage of the project are not completed.

Unit of learning outcomes No.	1	
Name of occupation	Roofer	
Name of qualification	Carrying out roof work	
Type of Learning	Formal	
Name of unit of learning outcomes	Installation and demolition of roofing	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Observes principles of propriety and ethics –Is creative and consistent in task performance –Foresees results of taken actions –Is open to changes –Can deal with stress –Updates knowledge and improves professional skills –Observes professional secrecy –Is able to bear responsibility for taken actions –Is able to negotiate terms of agreements –Cooperates in a team
Preparing for the installation and demolition of roofing	<ul style="list-style-type: none"> –Distinguishes types and elements of roof structure –Distinguishes roofing types 	

	<ul style="list-style-type: none"> – Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning roofing construction – Selects and prepares materials, tools and equipment to roofing construction and demolition 	
Conducting works related to renovation and demolition of roofing	<ul style="list-style-type: none"> – Carries out works related to repair and demolition of roofing – Assesses quality of roofing's workmanship 	
Roofing insulation construction	<ul style="list-style-type: none"> – Installs roofing insulations – Assesses quality of roofing's workmanship 	
Construction of roofing in various structures and shapes	<ul style="list-style-type: none"> – Installs roofing screeds – Installs roofing in various structures and shapes – Assesses quality of roofing's workmanship 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	2	
Name of occupation	Roofer	
Name of qualification	Carrying out roof work	
Type of Learning	Non-formal and informal	
Name of unit of learning outcomes	Carrying out roof work and roof slope drainage	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Updates knowledge and improves professional skills –Foresees results of taken actions –Is able to bear responsibility for taken actions –Cooperation in a team –Flexibility –Emotional balance
Preparation of drawings concerning roof work and elements of roof slope drainage	<ul style="list-style-type: none"> –Use of project documentation, technical specifications concerning carrying out and accepting works, standards and instructions concerning roof work and roof slope drainage –Preparation of drawings and drafts concerning roof work and elements of roof slope drainage –Preparation of a bill of quantities related to construction and demolition of roof work and roof slope drainage, calculation of costs of their carrying out –Application of software supporting roof tasks performance –Carrying out works related to preparation of a sheet metal to process it –Carrying out and installing roof works 	

	<ul style="list-style-type: none"> – Mounting roof works to specific building components 	
Selection and preparation of materials, tools and devices to carry out roof work and roof slope drainage	<ul style="list-style-type: none"> – Differentiation and selection of elements of roof slope drainage systems – Selection of materials to carry out roof work and roof slope drainage – Preparation of materials to construct roofing undercoats – Selection of roof windows, skylights and exits – Use of roof work devices and tools according to operating rules 	
Installation of roof slope drainage elements	<ul style="list-style-type: none"> – Performance of a quantity survey related to construction and demolition of roof work and roof slope drainage, preparation of works clearance – Fitting elements of roof slope drainage – Fitting gutters, rainwater pipes and roof drains – Quality assessment of the workmanship of roof work and roof slope drainage 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	3	
Name of occupation	Fitter and Finisher in the Construction Industry	
Name of qualification	Drywall system installation	
Type of Learning	Formal	
Name of unit of learning outcomes	Installation of partition walls, suspended ceilings and housing of roof structures in drywall systems	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Observes principles of propriety and ethics –Is creative and consistent in task performance –Foresees results of taken actions –Is open to changes –Can deal with stress –Updates knowledge and improves professional skills –Observes professional secrecy –Is able to bear responsibility for taken actions –Is able to negotiate terms of agreements –Cooperates in a team
Preparing for the installation of partition walls, suspended ceilings and housing of roof structures in drywall systems	<ul style="list-style-type: none"> –Distinguishes types of interior drywall systems –Distinguishes insulation types of partition walls, suspended ceilings and housing of roof structures, as well as observes rules of their performance –Uses project documentation, technical specifications of performance and acceptance of works, standards, catalogues and instructions concerning installation of partition walls, suspended ceilings and housing of roof structures in a drywall system –Chooses and prepares materials to install partition walls, suspended ceilings and housing of roof structures in a drywall system –Chooses and prepares tools and equipment to install partition walls, 	

	<p>suspended ceilings and housing of roof structures in a drywall system</p> <ul style="list-style-type: none"> –Indicates the assembly station of drywall elements –Chooses technologies of drywall element assembly 	
Installation of partition wall in a drywall system	<ul style="list-style-type: none"> –Carries out ancillary works related to installation of partition walls in a drywall system –Carries out partition walls in a drywall system –Carries out insulation of partition walls in a drywall system –Recognises types of damages concerning partition walls in a drywall system and chooses a way to repair them –Carries out works related to repair of damaged elements of partition walls in a drywall system –Assesses quality concerning the workmanship of partition walls in a drywall system 	
Installation of suspended ceilings and housing of roof structures in a drywall system	<ul style="list-style-type: none"> –Carries out ancillary works related to installation of suspended ceilings and housing of roof structures in a drywall system –Carries out suspended ceilings and housing of roof structures in a drywall system –Carries out insulation of suspended ceilings and housing of roof structures in a drywall system –Recognises types of damages concerning suspended ceilings and housing of roof structures in a drywall system and chooses a way to repair them –Carries out works related to repair of damaged elements of suspended ceilings and housing of roof structures in a drywall system –Assesses quality concerning the workmanship of suspended ceilings and housing of roof structures in a drywall system 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	4	
Name of occupation	Fitter and Finisher in the Construction Industry	
Name of qualification	Drywall system installation	
Type of Learning	Non-formal and informal	
Name of unit of learning outcomes	Installation of plasterboards	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Updates knowledge and improves professional skills –Foresees results of taken actions –Is able to bear responsibility for taken actions –Cooperation in a team –Flexibility –Emotional balance
Installation of wall covering systems	<ul style="list-style-type: none"> –Preparation of a wall covering assembly stand –Preparation of a storage location for materials to install wall coverings –Preparation of a drywall base –Selection of proper drywall –Preparation and cut of boards to install drywall –Installation of drywall on masonries (direct) –Designation of a drywall plane –Designation of a place to mount covering holders on wall sections –Selection and assembly of sections to install drywall –Arrangement of insulation layers –Arrangement of coverings on wall sections –Installation of coverings to hide installations –Carrying out finishing works such as 	

	spackling, external corners treatment, cleaning boards –Application of principles of occupational health and safety, fire protection and environmental protection	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	5	
Name of occupation	Fitter and Finisher in the Construction Industry	
Name of qualification	Carrying out painting and paper-hanging works	
Type of Learning	Formal	
Name of unit of learning outcomes	Carrying out painting work	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Observes principles of propriety and ethics –Is creative and consistent in task performance –Foresees results of taken actions –Is open to changes –Can deal with stress –Updates knowledge and improves professional skills –Observes professional secrecy –Is able to bear responsibility for taken actions –Is able to negotiate terms of agreements –Cooperates in a team
Preparing for the carrying out painting work	<ul style="list-style-type: none"> –Distinguishes types of painting materials, defines their properties and application –Distinguishes base types and defines ways to prepare them for various kinds of paint coating –Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out painting work –Chooses and prepares materials to carry out paint coatings in a specific technology –Chooses technologies of carrying out painting work –Chooses tools and equipment to carry out painting work 	
Coverage of surfaces and protection of objects against paint dropping and prepares the base from different	<ul style="list-style-type: none"> –Prepares the base from different materials to apply paint coatings –Assesses quality of carrying out 	

materials to apply paint coatings	painting work	
Preparation of the first layer of paint (priming paint) for surfaces not painted before	<ul style="list-style-type: none"> –Carries out paint coatings –Assesses quality of carrying out painting work 	
Painting surfaces with using various techniques (distemper, sponge roll, semi-permanent colour method, template pattern method, spray paint method)	<ul style="list-style-type: none"> –Carries out paint coatings –Decorates paint coatings with various methods –Assesses quality of carrying out painting work 	
Repair and renovation of paint coatings	<ul style="list-style-type: none"> –Recognizes types of damages of coatings and chooses a way to repair them –Carries out works related to repair and renovation of paint coatings –Assesses quality of carrying out painting work 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	6	
Name of occupation	Fitter and Finisher in the Construction Industry	
Name of qualification	Carrying out painting and paper-hanging works	
Type of Learning	Non-formal and informal	
Name of unit of learning outcomes	Painting wooden and metal elements and surfaces	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Updates knowledge and improves professional skills –Foresees results of taken actions –Is able to bear responsibility for taken actions –Cooperation in a team –Flexibility –Emotional balance
Covering surfaces and other objects	<ul style="list-style-type: none"> –Installation of scaffolds, decks and ladders –Arrangement of materials protecting workstation against paint dropping –Pasting of blending tapes on surface parts that do not require painting (edges, doorframes, windows, etc.) 	
Preparation of the first layer of paint to paint interior and exterior new not painted wooden surfaces	<ul style="list-style-type: none"> –Verification if no oily spots or resin rests are present on a painted surface –Application of a layer of flat colour on the surface –Grinding of the surface with a sanding sheet of medium category of granulation –Application and smoothening of an undercoat mix –Application of a layer of flat colour 	
Preparation of the first layer of paint to paint interior and exterior painted	<ul style="list-style-type: none"> –Verification if the surface does not shiver, paint does not go off or other 	

wooden surfaces	<p>defects do not appear</p> <ul style="list-style-type: none"> –Scraping of shivering or cracked paint with use of paint scraper or electric grinder –Application of a layer of flat colour on the sanded surface –Application of an undercoat mix on the sanded surface –Application of a flat colour's layer on the surface impregnated with an undercoat mix 	
Preparation of the first layer of paint on previously not painted metal surface	<ul style="list-style-type: none"> –Grinding of the surface to remove rust –Thorough cleaning of the surface to remove oily rests –Application of the antirust priming paint's layer –Application of the metal priming paint's layer 	
Preparation of the first layer of old painted metal surface	<ul style="list-style-type: none"> –Verification if the surface does not shiver, paint does not go off, there is no rust or other defects –Grinding of the surface with brushing machines or grinders –Application of metal priming paint on ground surfaces –Application of the joint mix on ground surfaces –Grinding of the undercoat mix surface with a sanding sheet of medium category of granulation –Application of a priming paint after undercoat mix dries 	
Painting metal and wooden surfaces	<ul style="list-style-type: none"> –Application of the first layer of flat colour –Grinding of the surface with fine sanding sheet –Application of the second layer of flat colour or light paint 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	7	
Name of occupation	Fitter and Finisher in the Construction Industry	
Name of qualification	Carrying out floor-covering works	
Type of Learning	Formal	
Name of unit of learning outcomes	Carrying out floor work	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Observes principles of propriety and ethics –Is creative and consistent in task performance –Foresees results of taken actions –Is open to changes –Can deal with stress –Updates knowledge and improves professional skills –Observes professional secrecy –Is able to bear responsibility for taken actions –Is able to negotiate terms of agreements –Cooperates in a team
Preparing for the carrying out floor work	<ul style="list-style-type: none"> –Distinguishes types of floor materials and defines their properties –Defines ways to prepare bases for various types of floor –Distinguishes types of floor insulations and defines ways of their performance –Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out floor work –Chooses and prepares materials to carry out floor work –Chooses tools and equipment to carry out floor work 	
Preparation of the surface and insulating layers to complete floors of various materials	<ul style="list-style-type: none"> –Prepares bases to carry out floor from various materials –Carries out insulating layers of floors 	

Installation of floor screed	<ul style="list-style-type: none"> –Carries out floor screeds –Assesses quality of flooring work 	
Installation wooden floors	<ul style="list-style-type: none"> –Installation floors from wooden –Carries out protections for floor surface –Recognizes types of damages of floors and defines a way to repair them –Carries out works related to maintenance and repair of floors –Assesses quality of flooring work 	
Installation of polymer floors	<ul style="list-style-type: none"> –Installation polymer floors –Carries out protections for floor surface –Recognizes types of damages of floors and defines a way to repair them –Carries out works related to maintenance and repair of floors –Assesses quality of flooring work 	
Floor tile laying	<ul style="list-style-type: none"> –Installation of floor tiles –Carries out protections for floor surface –Recognizes types of damages of floors and defines a way to repair them –Carries out works related to maintenance and repair of floors –Assesses quality of flooring work 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	8	
Name of occupation	Fitter and Finisher in the Construction Industry	
Name of qualification	Carrying out floor-covering works	
Type of Learning	Formal	
Name of unit of learning outcomes	Carrying out covering work	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Observes principles of propriety and ethics –Is creative and consistent in task performance –Foresees results of taken actions –Is open to changes –Can deal with stress –Updates knowledge and improves professional skills –Observes professional secrecy –Is able to bear responsibility for taken actions –Is able to negotiate terms of agreements –Cooperates in a team
Preparing for the carrying out covering work	<ul style="list-style-type: none"> –Distinguishes types of coverings, defines their properties and application –Distinguishes base types and defines ways of their preparation for coverings –Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out covering work –Chooses and prepares materials to carry out covering work –Chooses tools and equipment to carry out covering work 	
Preparing the ground for the covering work	<ul style="list-style-type: none"> –Prepares the base to carry out coverings –Assesses quality of covering work 	
Installation of coverings (tile, stone, Wood, boards, slats, polimer spatial	<ul style="list-style-type: none"> –Installs coverings from various materials (tile, stone, Wood, boards, 	

elements)	slats, polimer spatial elements) –Recognises types of damages of coverings and defines a way to repair them –Carries out works related to maintenance and repair of coverings made from various materials –Assesses quality of covering work	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	9	
Name of occupation	Bricklayer-Plasterer	
Name of qualification	Carrying out masonry and plastering works	
Type of Learning	Formal	
Name of unit of learning outcomes	Carrying out grouts, mortars and concrete mixes	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Observes principles of propriety and ethics –Is creative and consistent in task performance –Foresees results of taken actions –Is open to changes –Can deal with stress –Updates knowledge and improves professional skills –Observes professional secrecy –Is able to bear responsibility for taken actions –Is able to negotiate terms of agreements –Cooperates in a team
Preparing for the carrying out grouts, mortars and concrete mixes	<ul style="list-style-type: none"> –Distinguishes types of grouts and mortars, defines their properties and application –Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out grouts, mortars and concrete mixes –Chooses contents of grouts, mortars and concrete mixes –Chooses tools and equipment to carry out grouts, mortars and concrete mixes 	
Manual and mechanical preparation grouts, mortars and concrete mixes	<ul style="list-style-type: none"> –Prepares contents of grouts, mortars and concrete mixes –Carries out grouts, mortars and concrete mixes in accordance with a recipe –Assesses quality of the workmanship of grouts, mortars and concrete mixes 	

Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	10	
Name of occupation	Bricklayer-Plasterer	
Name of qualification	Carrying out masonry and plastering works	
Type of Learning	Formal	
Name of unit of learning outcomes	Carrying out brick building structures	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Observes principles of propriety and ethics –Is creative and consistent in task performance –Foresees results of taken actions –Is open to changes –Can deal with stress –Updates knowledge and improves professional skills –Observes professional secrecy –Is able to bear responsibility for taken actions –Is able to negotiate terms of agreements –Cooperates in a team
Preparing for the carrying out brick building structures	<ul style="list-style-type: none"> –Distinguishes types of brick building structures –Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out brick building structures –Recognizes types of brick bonds in walls –Distinguishes types of building insulations and defines ways of their performance –Selects and prepares materials to carry out brick building structures –Chooses tools and equipment to carry out brick building structure 	
Determination and preparation of a site to construct brick walls, insulation of walls and other surfaces	<ul style="list-style-type: none"> –Carries out earthwork, insulation works, ancillary concrete and reinforcement works related to carrying out brick building structures 	

	–Assesses quality of carrying out masonry work	
Construction of load-bearing, partition walls and other elements of the building	–Carries out brick walls, ceilings, lintels, roof, pillars, piers and chimneys –Carries out wall pointing and facing –Assesses quality of carrying out masonry work	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	11	
Name of occupation	Bricklayer-Plasterer	
Name of qualification	Carrying out masonry and plastering works	
Type of Learning	Formal	
Name of unit of learning outcomes	Carrying out plasters	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Observes principles of propriety and ethics –Is creative and consistent in task performance –Foresees results of taken actions –Is open to changes –Can deal with stress –Updates knowledge and improves professional skills –Observes professional secrecy –Is able to bear responsibility for taken actions –Is able to negotiate terms of agreements –Cooperates in a team
Preparing for the carrying out plasters	<ul style="list-style-type: none"> –Distinguishes types of plasters –Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out plasters –Chooses and prepares materials to carry out internal and external plasters –Recognises damage types of internal and external plasters and chooses ways of their repair –Chooses tools and equipment to carry out internal and external plasters 	
Installation of traditional plasters	<ul style="list-style-type: none"> –Prepares the base to carry out internal and external traditional plasters –Carries out internal and external traditional plasters –Takes actions related to finishing 	

	<ul style="list-style-type: none"> plastered surfaces and mounting ventilation grilles and other elements –Repairs internal and external traditional plasters –Assesses quality of carrying out plastering work 	
Installation of gypsum plasters	<ul style="list-style-type: none"> –Prepares the base to carry out internal gypsum plasters –Carries out internal gypsum plasters –Takes actions related to finishing plastered surfaces and mounting ventilation grilles and other elements –Repairs internal gypsum plasters –Assesses quality of carrying out plastering work 	
Installation of external plasters from a plastering mix on bases made of rock wool and styrofoam	<ul style="list-style-type: none"> –Prepares the base to carry out external plasters from a plastering mix on bases made of rock wool and styrofoam –Carries out external plasters from a plastering mix on bases made of rock wool and styrofoam –Takes actions related to finishing plastered surfaces and mounting ventilation grilles and other elements –Repairs external plasters from a plastering mix on bases made of rock wool and styrofoam –Assesses quality of carrying out plastering work 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	12	
Name of occupation	Bricklayer-Plasterer	
Name of qualification	Carrying out masonry and plastering works	
Type of Learning	Non-formal and informal	
Name of unit of learning outcomes	Planning, organisation and coordination of works on the construction site	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Updates knowledge and improves professional skills –Foresees results of taken actions –Is able to bear responsibility for taken actions –Cooperation in a team –Flexibility –Emotional balance
Organisation and preparation of the construction site	<ul style="list-style-type: none"> –Inspection of the construction site and verification of the course of underground installations –Determination of the construction site bounds –Fencing and signage of the construction site –Construction of internal roads on the construction site –Organisation of the administrative and social facility –Supplying the construction site with water and electricity –Organisation of production stations and warehouses 	
Workplace protection	<ul style="list-style-type: none"> –Identification of dangers, assessment and control of risk, i.e. Noise, electric safety, road traffic, working at heights, objects falling 	

	<p>down, use of electricity and devices, application of hazardous substances (including asbestos)</p> <ul style="list-style-type: none"> –Workplace organisation in accordance with occupational health and safety principles, prevention and application of principles of fire protection, environmental protection and giving first aid –Establishment of procedures in case of accident 	
Installation and de-installation of scaffolds for construction works	<ul style="list-style-type: none"> –Verification of technical requirements –Selection of a scaffold which type corresponds with conducted works –Establishment if proper materials to construct a scaffold have been selected –Installation of the first level of scaffolds –Elevation and mounting of scaffold elements –Arrangement of boards on horizontal trusses creating a platform –Installation of metal scaffold from systemic elements –Verification of the correctness of scaffolds' installation –Protection of scaffolds according to principles of occupational health and safety –De-installation of scaffolds after completion of works 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	13	
Name of occupation	Bricklayer-Plasterer	
Name of qualification	Carrying out masonry and plastering works	
Type of Learning	Non-formal and informal	
Name of unit of learning outcomes	Demolition of a building or its part, laying building foundations	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Updates knowledge and improves professional skills –Foresees results of taken actions –Is able to bear responsibility for taken actions –Cooperation in a team –Flexibility –Emotional balance
Carrying out demolition works with use of manual devices	<ul style="list-style-type: none"> –Identification of construction and non-construction elements of buildings to be demolished –Implementation of demolition with use of manual pneumatic hammers, oxy-acetylene blowpipe and other manual devices –Disconnection of the building from water and sewage system, gas system and electric system –Disassembly of systems –Commencement of a demolition from the roof, then next stories, ending at the ground level –Grading a demolition of concrete structural elements –Demolition of floor slabs and ceiling joists, load-bearing and non-load-bearing walls 	

Preparation of the construction site for foundations	<ul style="list-style-type: none"> –Verification of the conformity of actual type and condition of the ground with the one adopted in the design –Verification of the foundation level –Determination of the foundation course –Location of pillars and bench marks 	
Laying foundations	<ul style="list-style-type: none"> –Laying levelling courses –Setting and control of forms –Arrangement of reinforcement in ferroconcrete foundations –Arrangement of concrete mix in forms –Care about fresh concrete 	
Carrying out insulation works	<ul style="list-style-type: none"> –Arrangement of insulation on concrete or brick external surfaces –Arrangement of internal insulation 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	14	
Name of occupation	Bricklayer-Plasterer	
Name of qualification	Carrying out masonry and plastering works	
Type of Learning	Non-formal and informal	
Name of unit of learning outcomes	Construction of walls and ferroconcrete structures	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Updates knowledge and improves professional skills –Foresees results of taken actions –Is able to bear responsibility for taken actions –Cooperation in a team –Flexibility –Emotional balance
Determination and preparation of a base to construct walls and ferroconcrete structures	<ul style="list-style-type: none"> –Unloading, carrying and arranging building materials. Preparation of tools and devices to work –Determination of a location of basic construction elements of a building according to the architectural design –Thorough cleaning of the surface –Protection of the construction site 	
Construction of walls and other elements (pillars, joists, slabs, stairs) with use of forms	<ul style="list-style-type: none"> –Preparation of forms (casing boards or formwork system) –Arrangement of reinforcement –Arrangement of a concrete mix in forms with use of concrete pump –Condensation of a concrete mix with use of vibrators –Care about fresh concrete –De-installation of forms –Verification of keeping vertical and horizontal lines at various stages of works 	

Construction of walls and structures from prefabricated ferroconcrete elements	<ul style="list-style-type: none"> –Establishment of installation stages –Determination of the area where prefabricated elements are elevated –Installation and removal of temporary reinforcement and support systems –Location of concrete elements in a place of their integration –Verification of results of load effect on the existing structure during installation of concrete elements in a destination 	
Construction of reinforced ceilings, stairs and lintels	<ul style="list-style-type: none"> –Construction of forms for ceilings, stairs and lintels –Installation of a formwork system –Construction of flat lintels –Roof construction –Installation of ready lintels in type of L and U –Laying screeds –Preparation of reinforcements according to the design –Arrangement of reinforcements in forms –Construction of walls with reinforcement 	
Workload	...	
Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

Unit of learning outcomes No.	15	
Name of occupation	Bricklayer-Plasterer	
Name of qualification	Carrying out masonry and plastering works	
Type of Learning	Non-formal and informal	
Name of unit of learning outcomes	Fence construction	
Name of component of learning outcomes	Skills and knowledge	Personal and social competences
Respecting Safety&Health rules in regard to self and co-workers	<ul style="list-style-type: none"> –Foresees risks to human health and life and property and the environment associated with execution of tasks professional –Identify the hazards associated with the presence of harmful environmental factors in the workplace –Organize their own work station in accordance with the requirements of ergonomics, safety regulations and hygiene, fire protection and environmental protection –Used protection measures of individual and collective in the performance of tasks professional –Observes the principles of health and safety and apply the rules of law concerning fire protection and environmental protection –Give first aid to victims of accidents at work 	<ul style="list-style-type: none"> –Updates knowledge and improves professional skills –Foresees results of taken actions –Is able to bear responsibility for taken actions –Cooperation in a team –Flexibility –Emotional balance
Preparation of a site to construct a fence	<ul style="list-style-type: none"> –Determination of a fence’s location –Collection of information if electric cables, water and sewage pipes do not run close –Performance of a measurement and indication of a fence’s line, as well as signage of pillar’s location –Conducting excavations –Storage or transport of output to a proper place 	
Construction of concrete/brick fences	<ul style="list-style-type: none"> –Determination of the depth of foundations (base) with consideration of ground conditions –Base construction –Alignment, set-back of pillars in concrete base –Construction of concrete and brick walls 	
Workload	...	

Procedures, methods and criteria for assessment of these learning outcome	...	
ECVET points	...	

5. Conclusions

- The aim of WP3 task was achieved: learning outcomes units (together with the scope of knowledge and skills, personal and social competences) corresponding to professional competences required by employers in Poland, Italy and Switzerland were selected.
- As a result of extra discussion and comparative analyses, the partner experts of the project determined the components of learning outcomes and component activities which should be removed due to discrepancies in curricula formal and non-formal education in all three partner countries. Therefore, the following recordings were deleted:

Occupation: Roofer 712101

Qualification B.12. Carrying out roof work

Unit of learning outcomes 3.1. Installation and demolition of roofing

- Prepares drawings of roof slopes and roofing elements.
- Prepares a bill of quantity related to roofing construction and calculation of costs concerning roofing construction and demolition.
- Installs roof windows, exits, skylights and devices to collect renewable energy.
- Conducts quantity survey of works related to installation of roofing and prepares their clearance.

Occupation: Fitter and Finisher in the Construction Industry 712905

Qualification B.5. Drywall system installation

Unit of learning outcomes 3.1. Installation of partition walls, suspended ceilings and housing of roof structures in drywall systems

- Prepares a bill of quantity concerning installation of partition walls, suspended ceilings and housing of roof structures, as well as calculates its cost.
- Carries out a quantity survey of works related to installation of partition walls, suspended ceilings and housing of roof structures in a drywall system and prepares clearance of these works.

Unit of learning outcomes 3.2. Installation of wall coverings and solid flooring in a drywall system

- Distinguishes types of wall coverings and solid flooring in a drywall system
- Distinguishes insulation types of wall coverings and solid flooring applied in a drywall system and defines a way of their installation
- Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning installation of wall coverings and solid flooring
- Prepares a bill of quantity of works concerning installation of wall coverings and solid flooring in a drywall system and calculates their costs
- Chooses and prepares materials to install wall coverings and solid flooring in a drywall system
- Chooses and prepares tools and equipments to install wall coverings and solid flooring in a drywall system
- Carries out ancillary works related to installation of wall coverings and solid flooring in a drywall system
- Indicates the assembly station of elements of wall coverings and solid flooring in a drywall system
- Prepares the base for installation of wall coverings and solid flooring in a drywall system
- Chooses technologies of assembling elements of wall coverings and solid flooring in a drywall system
- Assembles elements of wall coverings and solid flooring in a drywall system
- Recognises types of damages of elements of wall coverings and chooses a way to repair them
- Repairs damaged elements of wall coverings
- Assesses quality of works related to installation of wall coverings and solid flooring in a drywall system
- Carries out a quantity survey related to installation of wall coverings and solid flooring in a drywall system and prepares clearance of these works

Qualification B.6. Carrying out painting and paper-hanging works

Unit of learning outcomes 4.1. Carrying out painting work

- Prepares a bill of quantity concerning painting work and calculates costs of carrying it out.
- Carries out a quantity survey of painting work and prepares their clearance.

Qualification B.7. Carrying out floor-covering works²

Unit of learning outcomes 5.1. Carrying out floor work

- Prepares a bill of quantity concerning floor work and calculates costs of its performance.
- Carries out a quantity survey of floor work and prepares its clearance.

Unit of learning outcomes 5.2. Carrying out covering work

- Prepares a bill of quantity concerning covering work and calculates costs of its performance.
- Carries out a quantity survey of covering work and prepares its clearance.

Occupation: Bricklayer-Plasterer 711204

Qualification B.18. Carrying out masonry and plastering works

Unit of learning outcomes 3.1. Carrying out grouts, mortars and concrete mixes

- Conducts a bill of quantity of works related to carrying out grouts, mortars and concrete mixes and calculates costs of their performance.
- Conducts a quantity survey related to carrying out grouts, mortars and concrete mixes and prepares clearance of these works.

Unit of learning outcomes 3.2. Carrying out brick building structures

- Conducts a bill of quantity concerning works related to carrying out brick building structures and calculates costs of their performance.

²The letter "B" means the area of education: "construction (B)".

- Conducts a quantity survey of works related to carrying out brick building structures and prepares their clearance.

Unit of learning outcomes 3.3. Carrying out plasters

- Conducts a bill of quantity concerning works related to carrying out internal and external plasters and calculates costs of their clearance.
- Conducts a quantity survey related to carrying out internal and external works and prepares clearance of these works.

Unit of learning outcomes 3.4. Carrying out repairs and demolition of brick building structures

- Uses project documentation, technical specifications concerning performance and acceptance of works, standards and instructions concerning carrying out repair and demolition works of brick building structures.
 - Selects and prepares materials to carry out repair of brick building structures.
 - Conducts a bill of quantity concerning works related to carrying out repair and demolition of brick building structures and calculates costs of their performance.
 - Chooses tools and equipment to carry out works related to repair and demolition of brick building structures.
 - Carries out masonry works related to repair of brick building structures.
 - Carries out demolition works of brick building structures.
 - Assesses quality of repair and demolition works of brick building structures.
 - Conducts a quantity survey of works related to carrying out repair and demolition of brick building structures and prepares their clearance.
- Due to the fact that the learning outcomes unit in formal education contains too a lot of educational content, what may hamper educational mobility among partner countries, the division of learning outcomes units into smaller parts, called “components of learning outcomes,” was suggested.
- The suggestion of isolating “components of learning outcomes” in formal education was discussed and approved at the Steering Committee meeting of ECVET-BUD project, held on 9 October

2013, in presence of the members of National Team of ECVET Experts Poland.

- The separate components of learning outcomes in formal education have been assigned to the relevant content of the core curriculum for vocational education.
- To avoid duplication of the content of education, in each unit of learning outcomes in formal education was separated one component of learning outcomes, which includes preparatory activities for the work performed.
- For each unit of learning outcomes has been added Health&Safety component.
- These professional competences required by employers that have not been assigned to the core curriculum (formal education), treated as units of learning outcomes of non-formal and informal learning.
- Units of learning outcomes also presented in the form of modules, which may facilitate use of them during the use of ECVET.

Bibliography

- Referential Report. Reference of Polish Qualification Framework for lifelong learning to European Qualification Framework. The Educational Research Institute, Warsaw, June 2013.
- Recommendation of The European Parliament and of The Council of 18 June 2009 on the establishment of a European Credit System for Vocational Education and Training (ECVET). 2009/C 155/02.
- Ordinance of the Minister of National Education dated 7 February 2012 on the core curriculum of vocational education (Dz. U. 2012 no. 0 item 184).
- Kunc L., Woźniak I. (editors): Vocational education and training based on work process analysis in a company. TNOiK o/Gdańsk, ITeE-PIB, Gdańsk – Radom, 2012.
- Kramek Z., Sławińska K., Symela K. (editors): Supporting system for nonformal and informal learning for low-skilled workers. ITeE-PIB, Radom 2012.
- Butkiewicz M. (editor): The validation of professional qualifications in the Polish construction industry, achieved in the process of work. "Budowlani" Trade Union, Warsaw 2010.
- M-ECVET-S: Development and test of a modular system in the field of professional further training. Grant Agreement Number: DE/09/LLP-LdV/TOI/147251. Final Brochure: Description of the products, 28.10.2011.