R2-A1, A2, A3 InclusiveStone Course Curriculum.

R2 - Complete Training Path Guide for teaching stone sector's professions for people with different skills.

"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them."

Erasmus+

Content

1. GENERAL DATA OF THE CURRICULUM.

Occupational group: Extractive industries

Professional area: Natural stone

Name of the syllabus: Auxiliary operations in natural stone processing plants and treatment and beneficiation of minerals and rocks.

Syllabus specifications: Curricular adaptation with social inclusion criteria.

Duration of the associated training (total of training modules): 340 hours.

List of training modules and training units:

1. Handling of blocks, boulders and slabs (70 hours).

2. Handling and conditioning of products, consumables and machinery in natural stone processing plants and treatment and processing of minerals and rocks (110 hours).

2.A. Cleaning in natural stone factories and mineral and rock beneficiation plants (70 hours)

2.B. Storage of consumables and products in natural stone factories and mineral and rock processing and beneficiation plants (40 hours)

3. Handling of loads with fork-lift trucks (50 hours)

4. Handling of loads with overhead cranes and hoists (30 hours).

General Competence:

Perform auxiliary operations in plants for the processing of natural stone and the treatment and beneficiation of minerals and rocks, fundamentally in the handling and conditioning of installations, equipment, work areas and products, under the direct supervision of their immediate superior, and observing the rules of occupational and environmental risk prevention.

Professional Environment:

- Professional field:

Works as an employee in large, medium and small companies, mainly private, involved in the processing of natural stone and the treatment and processing of minerals and rocks. He/she works following instructions from the operator to whom he/she reports and according to established procedures.

- Production sectors:

It is basically located in the following sectors: Extractive industries and, mainly, in the following productive activities: Extraction of energy minerals. Extraction of uranium and thorium minerals. Extraction of metallic minerals. Extraction of non-metallic and non-energy minerals. Stone industry. It can also be located in the construction or environmental sector, in companies dedicated to the treatment of materials from demolition or waste management.

- Related occupations or jobs:

- Non-metallic mineral product manufacturing labourer.

- Overhead crane driver-operator.

- Forklift truck driver-operator, in general.

- Operator / Assistant in mineral processing and beneficiation plants.

- Operator / Assistant in aggregate plants.

- Operator / Assistant in natural stone processing plants.

2. HANDLING BLOCKS, BOULDERS AND SLABS OF NATURAL STONE

2.1. COURSE DESCRIPTION

Concept: Course focused on training in the manipulation of blocks, boulders and blocks in natural stone processing plants and mineral and rock processing and beneficiation plants.

Duration: 70 hours

2.2. COMPETENCIES AND LEARNING OUTCOMES

2.2.1. Professional achievements and achievement criteria

RP1: Assisting in the reception, distribution and storage of blocks, boulders and blocks, in accordance with the work instructions and in safe conditions, to ensure the supply of raw material for the natural stone production process.

CR1.1 The elements for fixing the material to the lorry are released, after verifying that their fall cannot injure people near the area.

CR1.2 The choice of slings and other fastening accessories is made according to the weight and dimensions of each block and checking that they do not present any deterioration or dangerous alterations for their use.

CR1.3 Slings are placed in the areas that guarantee the stability of the material and its subsequent recovery, attaching them securely to the indicated points and activating the blocking mechanisms.

CR1.4 The choice of wedges and wooden blocks for the stabilisation of the material is made according to the characteristics of the different areas where they are going to be placed.

CR1.5 The indications given to the operators of lifting and transport machinery are clear and precise, respecting the established routes and signs, and avoiding the obstruction of other work.

CR1.6 Avoid, at all times, being under a suspended load or within the trajectory of movement of the load, as well as lifting and transport machinery.

CR1.7 Blocks, boulders and bunches are checked to ensure they are stabilised on the ground.

RP2: Collect and provide tools and consumables to correctly and safely position the blocks, boulders and blocks in the cutting or sawing machines, in accordance with the work instructions and in safe conditions.

CR2.1 The wedges and blocks that are stored are suitable for the work.

CR2.2 The levelling consumables are used in such a way that they do not impede the recovery of slings and ensure sufficient immobility of the block, bolus or bunch, or its products, until it is completely stabilised.

CR2.3 The stockpiling of the consumables necessary for the work is carried out following the established routes, respecting the signs and avoiding interrupting the normal development of the rest of the work.

CR2.4 The stocking of consumables necessary for the work is carried out, respecting the layout and maximum height indicated by the manufacturer and correctly wedging the materials that require it.

CR2.5 Surplus tools, tools and consumables are removed to the warehouse or to the appropriate waste container, once the work is finished.

RP3: Prepare and apply pastes and mortars, following the established instructions and complying with safety and environmental regulations, to settle and immobilise the material on the cutting and sawing machines.

CR3.1 Pastes and mortars are prepared with the specified dosages.

CR3.2 Pastes and mortars are applied within their period of use (setting), following the instructions received.

CR3.3. Dilutions are applied according to the instructions received, complying with the established occupational health and safety and environmental protection regulations.

CR3.4. Checks that the block is perfectly immobilised on the machine or cutting platform.

2.2.2. Professional context

Means of production and/or creation of services

Slings. Metal bars. Wedges. Squares. Plumb line. Levels. Manual wheelbarrows. Hammers. Hammers. Hydraulic jacks. Clamps and suction cups. Concrete mixer. Trowel. Shovel. Silo. Wheelbarrow. Buckets. Trowels. Aggregates, water and binders. Wood shavings.

Products or result of the work

Blocks, boulders and blocks stored and/or positioned correctly and safely in the machines. Intermediate products. Mortars and pastes.

Information used or generated

Oral or written work instructions. Company risk analysis and assessment document and, where appropriate, the health and safety document. Internal safety provisions. Procedures for specific operations for handling blocks, boulders and slabs.

2.3. CAPACITIES AND ASSESSMENT CRITERIA

C1: Describe in a general way the organization and operation of a block workshop, relating the main work processes and activities, with the trades and facilities, as well as with the equipment and machinery used, to collaborate in the reception, distribution and storage of natural stone blocks.

CE1.1 Identify the criteria commonly used in the organization of a block park, in order to optimize the available space and minimize routes and material movements.

CE1.2 Identify the main characteristics and basic quality requirements of natural stone blocks according to each type of stone.

CE1.3 List the main risks and safety measures to be adopted in a block park, identifying individual protective equipment and recognising collective safety means: signs, protections or others.

CE1.4 Describe the work processes in a block park, identifying the main activities to be carried out: reception, identification and classification; preparation and cutting or sawing; the classification of the resulting products according to quality criteria and their dispatch for further processing or sale.

CE1.5 Distinguish the main types of machinery used in the cutting of the block: looms, disc cutters, thread machines, shears and others, describing in a general way their characteristics, capacities and operation, and relating them to the types of stone and the different products to be obtained.

CE1.6 Identify the main jobs involved in the processes and activities to be carried out in the block park, indicating their main functions, activities and responsibilities of each one.

CE1.7 Identify the different installations and auxiliary equipment (water, compressed air, electricity, water purification, overhead cranes, belts) involved in the process, relating them to the different systems for cutting blocks, boluses or slabs.

CE1.8 Classify the consumables required for each process of cutting or sawing, handling and storage of blocks according to their functions and type.

C2: Describe the industrial process used for the handling of blocks, boluses and studs, indicating those actions that guarantee the stability of the load, as well as safety against the means, machines and people involved in the processes.

CE2.1 Cite the sequence of all the operations necessary for the safe handling of the load, from the truck to its location in the park or cutting process.

CE2.2 List all the elements and auxiliary means used to handle stone blocks, boluses or slabs, depending on the characteristics of the load (weight, shape and volume).

CE2.3 Select, from a set of means and tools, those necessary for the suspension, transport and stabilisation of a block, bolus or gust, recognising possible deterioration that may prevent its use.

CE2.4 List the sequence of operations necessary to place and remove means of fastening to a block, bolus or gust safely and with the fewest possible operations.

CE2.5 List the most common risks and dangers in the stowage of stone, in the process prior to cutting the block, bolus or slab, relating them to the safety measures to be adopted in each case.

CE2.6 Mention the criteria to be taken into account for the correct stabilisation of a load depending on the characteristics of the block (weight, shape, volume or others) and the area in which it is going to be arranged.

CE2.7 Describe the process of turning blocks, pointing out the main risks and the safety measures to be adopted.

CE2.8 In a duly characterized practical case, carry out the handling of a block, bolus or slab in a natural stone processing plant, verifying that each and every one of the safety requirements has been met.

CE2.9 List the issues to be taken into account when giving instructions to the operators of lifting, transport and tipping machines, so that they are clear, unequivocal, safe and effective.

C3: Select the tools and tools necessary to position the stone on the cutting machines, ensuring its stability and safety, following the established procedures.

CE3.1 Explain the reasons why the block must be located, levelled, plumbed and stabilised, relating the security measures to be adopted and the problems arising from incorrect action.

CE3.2 Describe step by step the process until the block, bolus or slab is completely stabilised.

CE3.3 Describe the characteristics and functions of each tool and tool, depending on the work for which it is intended.

CE3.4 Identify the areas where the wedges and "chocks" are placed, so that they allow the passage of the slings or chains.

CE3.5 Describe and carry out the process of removing surplus tools, tools and consumables, in a safe manner and applying the general criteria for their storage or removal to landfill, depending on their nature and wear.

CE3.6 In a duly characterized practical case, carry out the collection of appropriate tools, tools and consumables to position the block on the machines, checking that all safety measures are complied with.

C4: Prepare pastes and mortars with the established dosages and following the manufacturer's specifications to apply them directly to the block and guarantee their perfect stability, minimizing vibrations.

CE4.1 Identify the components of mixtures, recognising their state of conservation for their possible use.

CE4.2 Select the appropriate tools and tools for the preparation of mixtures according to the work to be carried out.

CE4.3 In a duly characterized practical case, indicate the quantities of each component needed to obtain a specific type of mortar.

CE4.4 List the risks and dangers involved in the use of a binder after its setting period.

CE4.5 Mention the safety measures that must be considered when working with mortars and pastes.

CE4.6 Cite the criteria used to check the perfect stabilisation of a block.

CE4.7 In a duly characterized practical scenario:

Prepare a mortar with a certain dosage.

- Check that the prepared mixture meets the required conditions.

- Apply the mortar.

- Clean all used tools.

- Properly store unused material in the warehouse, preserving it from air and moisture.

- Remove the excess to landfill.

2.4. CONTENTS

1. Natural Stone Blocks: Reception

- Types of natural stone. Main features.

- Types of stone. Quality criteria.

- Stone formats: Blocks, pins and slabs: shape and volume.

- Reception and classification of blocks.

- Coding and recording systems.

2. The Natural Stone Block Park: Plant and Machinery

- The Block Park. Characteristics and organization.

- Main equipment and machinery: types and general characteristics of each.

- Auxiliary installations: electricity, water, compressed air, water purification.

- Main tools and implements of a block park. Maintenance.

-Consumables. Classification according to machinery. Storage, maintenance, replacement, removal and recycling.

3. Handling Natural Stone Blocks

- Lifting and transport systems.

- Flipping blocks.

- Types of slings, chains, and systems to hook the block.

- Tools and auxiliary means for the stowage of loads.

- Block clamping.

-Storage.

4. Safety and environmental protection in the block park

- Safety measures in the handling of blocks: maximum loads, eccentricity of loads, high loads.

- Established itineraries and signposts.

- Stacking of blocks, pins and slabs.

- Machine safety devices.

- Personal protective equipment.

- Environmental protection measures.

5. Positioning of blocks on transport trolleys and cutting machines

- Auxiliary operations in plumbing, leveling and stabilization of blocks in load-bearing elements.

- Stabilization and immobilization of the blocks. Procedures. Safety Criteria

- Tools, fixtures and consumables used. Wedges and chocks.

6. Preparation and application of pastes and mortars for the positioning of the blocks

- Mortars and pastes. Components and dosage.

- Preparation of pastes and mortars. Kneading periods. Usage times.

- Application of mortars.

7. Safety and Environmental Measures in Block Positioning

- Safety measures when handling high loads

- Safety measures when moving large loads

- Safety measures in the positioning of loads on cutting machines.

- Safety measures in the preparation and application of pastes and mortars.

- Environmental criteria. Waste removal. Sorting & Dumping

2.5. METHODOLOGICAL GUIDELINES

Teaching methodology			
Activity	**Teaching techniques**	**Student work**	**Hours**
Theoretical classes	Lectures on theoretical content. Resolution of doubts raised by students. Virtual Reality content.	Face-to-face:	35
		Non face-to-face:	0
Practical lessons	Work placement in a factory or an enabled special classroom.	Face-to-face:	30
		Non face-to-face:	0
Mentoring	Resolution of doubts about theory, problems and practices.	Face-to-face:	0
		Non face-to-face:	2
Official examinations	Preparation, correction and revision of written tests.	Face-to-face:	3
		Non face-to-face:	0
			70

Activities and evaluation criteria		
Activitiess	**Evaluation systems and criteria**	**Percentage weight (%)**
Written examinations.	Theoretical and practical knowledge acquired by the student will be evaluated.	50
Practical lessons	The knowledge acquired in the internship will be evaluated.	50

Control and monitoring mechanisms

The control and monitoring of student learning will be carried out through the following actions:

- Participation in the topics and practical cases raised in class.
- Attendance at theory and practical classes.
- Tutorials.
- Completion of self-assessment questionnaires.
- Assessment of the individual written test, or individual and group research work.

2.6. REASONABLE ACCOMMODATION

Below are some general recommendations that in no case can replace the criteria of specialists, doctors, occupational risk preventionists, labour inspectors, evaluators of disability and/or work incapacity criteria, etc.

A1 Reduce or limit the weights to be loaded and unloaded, and/or processes to be carried out manually. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, cardiovascular system, digestive system, genitourinary system, neoplasms).

A2 Automate machinery and processes as much as possible. (Especially recommended for musculoskeletal-related disabilities.)

A3 Add assistive devices, such as special grips or lower-resistance levers, to reduce strain and make handling easier. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A4 Use ergonomics in crane controls, locating and designing steering controls so that they are accessible and easy to use even with a single upper limb; with large, easy-to-access buttons, technological systems such as remote control devices or automation systems, obstacle detection sensors, proximity alarms and automatic braking systems (especially recommended for disabilities related to the musculoskeletal nervous system).

A5 Reduction of distances in prolonged standing. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A6 Facilitate accessibility in the work environment, eliminating obstacles, architectural barriers, and/or possible unevenness. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A7 Schedule breaks and/or make work schedules more flexible. Schedule breaks from time to time to facilitate postural change and avoid forced and repetitive positions for a long time. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, respiratory system, cardiovascular system, hematopoietic system, digestive system, genitourinary system, endocrine system, neoplasms, mental

illness).

A8 Include the location and design of directional controls so that they are accessible and easy to operate. Install ergonomic controllers on the crane, such as levers or joysticks that are easy to operate and access, with intuitive, touch-sensitive controls. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A9 Installation of actuation mechanisms at a height suitable for the use of persons in wheelchairs and/or short stature. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A10 Inclusion of more accessible and/or automated interfaces to facilitate crane operation. Touch screens with clear, easy-to-understand icons, audible and visual cues to indicate crane status, facilitate spatial orientation and load tracking. (Especially recommended for disabilities related to the nervous system, visual apparatus, hearing, mental retardation)

A11 Use of PPE (FPP2 mask, splash screens, goggles, gloves...) that prevent contact and respiration of particles (dust, smoke, combustion, etc.). (Especially recommended for disabilities related to the respiratory system, digestive system, neoplasms, throat and related structures, skin and appendages).

A12 Improvement of air quality and control in the work environment with adequate exhaust, filtration, and/or ventilation systems. (Especially recommended for respiratory disabilities.)

A13 Maintenance and cleaning of workplaces, machinery and tools, using wet methods or vacuum cleaners instead of others that encourage the movement of airborne particles. (Especially recommended for disabilities related to the respiratory system, skin and adnexa); Keep work areas clean, organized, and free of obstacles. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, visual apparatus).

A14 Avoid regular exposure to noise and/or vibrations through the use of appropriate PPE. (Especially recommended for disabilities related to the cardiovascular system, ear, throat and related structures, language); Reduce noise and other visual stimuli that impede the worker's concentration (Especially recommended for disabilities related to mental illness).

A15 Avoid situations of exposure to intense or prolonged stress by limiting the burden of responsibilities, favouring the alternation of tasks and regulated breaks. (Especially

recommended for disabilities related to the cardiovascular system, digestive system, mental illness).

A16 Control temperature and humidity to avoid high and low temperature environments. (Especially recommended for disabilities related to the cardiovascular system, hematopoietic system, neoplasms, digestive system, mental illness).

A17 Avoid tasks with a risk of cuts or major trauma (Especially recommended for disabilities related to the hematopoietic system).

A18 Avoid rotating and/or night shift work, favoring more regular and predictable work for the worker, which implies stability in their meal schedules. Respect the worker's feeding times and needs (Especially recommended for disabilities related to the digestive system).

A19 Have toilets close to the workplace. (Especially recommended for disabilities related to the digestive system, genitourinary system, neoplasms).

A20 Keep hazardous chemicals or materials well stored, maximizing direct and continuous exposure to them. (Especially recommended for skin-related disabilities and adnexa.)

A21 Limit prolonged exposure to intense light; Adjust and/or improve the lighting of the work environment (Especially recommended for visually impaired disabilities).

A22 Place visual cues in large fonts and braille. (Especially recommended for visually impaired disabilities.)

A23 Add acoustic signals. (Especially recommended for visually impaired disabilities.)

A24 Use of written communication systems and devices (blackboards, signs,...), visual communication (graphics, pictograms, signs, etc.), sound and/or assisted communication that indicate operational and safety procedures. (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation.)

A25 Have the support of a partner and/or superior in communication and/or have employment with the support of professionals from social organizations that support people with intellectual, sensory or mental disabilities (Especially recommended for disabilities related to hearing, throat and related structures, language, mental

retardation).

A26 Use teaching and training methods in the operation of machinery supported by visual and practical resources that facilitate comprehension and learning. (Especially recommended for disabilities related to mental retardation.)

A27 Provide structured, clear, and simple work instructions. Establish routines. (Especially recommended for disabilities related to mental retardation and mental illness.)

A28 Provide simplified controls, checklists, paths and signage. (Especially recommended for disabilities related to mental retardation.)

A29 Continuous feedback and positive reinforcement. (Especially recommended for disabilities related to mental illness.)

2.7. PEDAGOGICAL GUIDELINES

Below, a series of general pedagogical guidelines and adaptations are offered depending on the student body in order to achieve the greatest effectiveness in teaching and a greater degree of academic and learning satisfaction for students, always adapting to the corresponding disability:

OP1. In time, methodology and activity:

OP1.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP1.2 Supervise the student's independent work: monitoring of work, exam dates, activities inside or outside the school.

OP1.3 Have a reference person with whom you can talk and communicate more openly and closely, to whom you can transmit and communicate, above all, your fears and difficulties in general.

OP1.4 Give individual, brief, concrete instructions and offer additional explanations; Try to simplify more abstract concepts, ensuring that you have understood the instructions.

OP1.5 Provide alternative answers that help generate successful responses and promote their strengths in the group, asking questions in which they can feel competent, avoiding error or exposure to situations where they may feel forced or ridiculous, trying to make corrections in private.

OP1.6 Design organisational and methodological strategies for personalised attention to students: multilevel teaching, project-based learning (research, work, problem-based, service-learning, etc.).

OP1.7 Give the student time to organize, carry out and review his/her tasks.

OP1.8 Influence the specific guidelines for the presentation of papers and activities (objective, format, date).

OP1.9 Adapt the typography of the texts used in class to facilitate reading accuracy and speed and thus comprehension.

OP1.10 Use alternative formats to written text for the presentation of work or tasks (computer, audio, etc.).

OP1.11 Allow the use of a written script in oral presentations.

OP1.12 Use lined paper to improve the organization of the graphic space.

OP2 On assessment techniques and instruments:

OP2.1 Ensure that students have understood the instructions well.

OP2.2 Provide supervision and self-instructions to help students organize their time when taking assessment tests.

OP2.3 Estimate and grant extra time to carry out the assessment tests, taking into account the specific needs of each student and the area.

OP2.4 Adapt the format of the assessment tests to make them easier to read: Arial font type, at 12 pt. With 1.5 line spacing and at least 1.5 inter-spacing.

OP2.5 Facilitate access to information on assessment tests with the reading of the test by teachers.

OP2.6 Ensure that the student has reviewed the exam and has not left questions unanswered by mistake.

OP2.7 Promote the widespread use of varied, diverse, flexible assessment instruments adapted to different learning situations, ensuring that the conditions for carrying out the processes associated with assessment are adapted to the needs of students with specific educational support needs.

OP3 Other measures to address diversity/ Methodological guidelines.

OP3.1 Students with musculoskeletal disabilities-related disabilities and students with nervous-system-related disabilities.

OP3.1.1 Establish an active methodology that favours contact with their environment and motivates them in their acquisitions.

OP3.1.2 Surround him with plenty of manipulative and social stimulation.

OP3.1.3 Make the most of their driving resources.

OP3.1.4 Use of adapted materials, use of computer.

OP3.1.5 Assess progress against baseline knowledge.

OP3.1.6 Evaluate content rather than form.

OP3.1.7 Assess effort or interest.

OP3.1.8 Assess, together with the affected students, the different possibilities that exist to carry out the corresponding activity in the best conditions, according to the degree of disability they present.

OP3.2 Students with disabilities due to deficiencies of the digestive system and genitourinary system.

OP3.2.1 Allow students to use the service whenever they need to.

OP3.3 Students with intellectual disabilities and students with disabilities related to Language Disorders:

OP3.3.1 Provide a place in the front rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.3.2 Provide a regulated, organized and safe physical environment.

OP3.3.3 Ensure friendly and accessible environments (structure, noise level, signage, etc.).

OP3.3.4 Use visual aids in explanations: digital whiteboard, diagrams with the most relevant content including photos/images, etc.

OP3.3.5 Be close to the student when addressing him/her, avoiding possible distractions.

OP3.3.6 If the student has specific reading and/or writing difficulties (dysgraphia, dysorthography), spelling mistakes should not influence the assessment and grading decisively.

OP3.3.7 Develop study strategies and techniques that help compensate for their difficulties.

OP3.4 Students with mental disabilities

OP3.4.1 Provide a place in the first rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.4.2 Enhance tutoring with these students: they can help to know the specific needs of each one.
OP3.4.3 Try to respond to the student's didactic needs: provide teaching materials in advance, facilitate note-taking, or encourage classmates to borrow notes. In this work, it is essential to agree on these needs with the student himself.

OP3.4.4 Be flexible with attendance problems, delays or distractions in class (this may be side effects of drugs or consequences of a crisis).

OP3.4.5 Give sufficient notice of the delivery of assignments or exam dates, in case these coincide with periods of hospital or absenteeism.

OP3.4.6 In group work, allow individual work if there are problems with social relationships.

OP3.4.7 Motivate the student throughout the course.

OP3.5 Students with hearing dysfunction (ear, throat or related structures)

OP3.5.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.5.2 Provide photocopies of class explanations, facilitating note-taking, writing on the blackboard the fundamental aspects of the topics, using a classmate to contrast the information.

OP3.5.3 Encourage participation in class, asking frequently to get feedback on possible difficulties when listening to class explanations.

OP3.5.4 Facilitate access to lip reading, always trying to speak in front of the student.

OP3.5.5 In the correction and evaluation of tests: in all subjects, do not apply those criteria related to written expression such as the use of accents, adequate punctuation, correct agreement between the elements of the sentence, the adequacy of vocabulary, etc.

OP3.5.6 In evaluations, repeat the text several times.

OP3.5.7 Try to write a small script or outline of the development of the class on the board.

OP3.5.8 Communicate important matters by e-mail or in writing well in advance.

OP3.5.9 Do not use videos without subtitles.

OP3.6 Students with visual dysfunction

OP3.6.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.6.2 Ensure that visually impaired pupils make the most of their visual impairment. To do this, it will be necessary to provide them with optimal conditions that facilitate their learning, such as: brightness, contrast, location close to the blackboard, use of optical and non-optical aids such as lectern or flexo, etc.

OP3.6.3 Visually impaired pupils receive little information from their environment, so we must select for them as far as possible a repertoire of representative activities, standard activities.

OP3.6.4 Starting from the concrete and the particular to the global and general.

OP3.6.5 Do not speak with your back to the classroom when writing on the board. Try not to wander around the classroom while teaching. When speaking, use a normal tone of voice, speak slowly and try to vocalize correctly, but without exaggerating. Do not cover your mouth or have any object (pen, pencil) that makes it difficult to receive information.

OP3.6.6 Write a short script or outline of the development of the class on the board.

OP3.6.7 Communicate important matters by e-mail or in writing well in advance.

OP3.6.8 Do not use videos without subtitles.
OP3.6.9 In the event that students are unable to carry out the corresponding activity due to their visual dysfunction, it will be carried out with the help of a partner who will describe what they are visualizing and who will respond to each situation according to the indications given orally.

3. CLEANING IN NATURAL STONE FACTORIES AND MINERAL AND ROCK BENEFICIATION PLANTS

3.1. COURSE DESCRIPTION

Concept: Course focused on training in cleaning in natural stone factories and mineral and rock beneficiation plants in natural stone processing and treatment plants.

Duration: 70 hours.

3.2. COMPETENCIES AND LEARNING OUTCOMES

3.2.1. Professional achievements and achievement criteria

RP1: Transport and stockpile consumables and products, safely, manually or using auxiliary elements, to ensure the supply of the machines in the process and/or their storage.

CR1.1 The various consumables and products are stored in such a way that they do not hinder the development of the rest of the work.

CR1.2 In the handling, placement and removal of tools and means of cutting, breaking, grinding, sorting or concentration, the plant operators are assisted, following their instructions at all times.

CR1.3 Consumables, additives and products are handled in accordance with established instructions or procedures.

CR1.4 Sampling is carried out in accordance with established instructions or procedures.

CR1.5 The transport of consumables and products is carried out using the appropriate means depending on their nature and characteristics (weight, dimensions, among others), following established routes and respecting the safety signs.

CR1.6 Specific risks in the collection, handling and transport of consumables and products are identified, adopting appropriate prevention measures, especially with regard to the use and maintenance of personal protective equipment.

CR1.7 Waste, surplus consumables and their packaging are removed from the work areas and deposited in the places provided for this purpose in the company, in compliance with the regulations on the prevention of occupational and environmental risks.

RP2: Clean the natural stone elements, removing any adhered elements, for their proper transformation, storage or dispatch.

CR2.1 Prior to washing, the stone elements are checked to ensure that they are in a safe position.

CR2.2 Washing aids are collected and prepared, leaving them ready for each new use.

CR2.3 The blocks are washed with the appropriate flow rate and pressure, until the adhered material is removed.

CR2.4 The washing of the finished products is carried out with the specified dilution, controlling the flow and pressure, as well as the time of the process, and respecting environmental standards.

CR2.5 The washing of the panels and other finished products is checked to ensure that they are sufficiently clean and prepared for subsequent processing or dispatch.

CR2.6 The boards, once washed, are stabilized, avoiding bending and torsional stresses.

RP3: Clean and condition the machinery, equipment and installations, tools and work area, under the established conditions and complying with safety and environmental protection regulations, for the correct and safe performance of the work.

CR3.1 Machines are checked to ensure that they are safe prior to washing.

CR3.2 Cleaning work is carried out in accordance with the established frequency and/or following the established instructions or procedures.

CR3.3 The cleaning means used are appropriate for each type of machine or tool.

CR3.4 The tools and implements used are removed and placed in the assigned places once the cleaning work has been completed.

CR3.5 Waste, debris and sludge are removed and transferred to established containers and/or landfill.

CR3.6 Work areas are kept in orderly and clean conditions, especially removing excess materials that may affect traffic routes and the performance of the work.

CR3.7 Safety elements (signs, protections, handrails and others) are assembled, maintained and dismantled, following the instructions received and the internal safety provisions.

CR3.8 The auxiliary means requested (ladders, scaffolding, mobile platforms or others) are handled, assembled and dismantled, following the instructions received in terms of mode, arrangement, deadline and safety conditions.

RP4: Perform complementary tasks to assist in the storage and dispatch of goods, following instructions.

CR4.1 The unloading and stacking of products is carried out in the manner and under the conditions specified, and using the appropriate means and equipment.

CR4.2 The storage of materials is carried out in the indicated places, respecting the established arrangement and heights and correctly fitting those materials that require it.

CR4.3 The different products produced are collected and/or placed in the corresponding containers and packaging, following instructions.

CR4.4 The products for which this is established are secured in the containers and packaging, using the prescribed means (shavings, expanded foams, bubble wrap, air bags, strapping, staplers and the like), following the established instructions.

CR4.5 The packaging, containers or containers that protect the goods are checked to ensure that they are in good condition, notifying, where appropriate, the person in charge of any losses due to poor condition or breakage.

CR4.6 It is checked that they do not exceed the storage limits established in the silos and open-air stockpiles.

CR4.7 The quantity, weight, identification and characteristics of the products are checked at the entry and exit of products, recording the necessary information following the established procedures.

CR4.8 The loading of the loads in the external means of transport is carried out, ensuring their integrity, and their internal location is carried out according to the instructions received.

CR4.9 Packaging waste is removed from the work areas and deposited in the designated places in the company, in compliance with environmental standards.

3.2.2. Professional context

Means of production and/or creation of service

Sample collectors. Pressurized water cleaners. Hoses. Brushes. Flow pumps. Shovels. Brooms and brushes. Hand trucks. Waste containers. Packaging, containers and containers. Pneumatic guns, hammers, spikes, kickstands. Flexometer, strapping tapes, live guards and corners, shavings, expanded foams, plastics: bubbles, heat shrinks, air pockets. Staplers, nailers, blowtorches. Cardboard, ropes, self-adhesive tapes. Woods and coinage. Scales.

Work products or results

Products stockpiled and transported. Wear elements replaced. Clean and stabilized natural stone products. Clean and conditioned equipment, machinery and work areas. Wash dilutions. Packaged or packaged products for storage and dispatch. Properly weighed, stacked and stored inbound and outbound products.

Information Used or Generated

Oral or written work instructions. The company's risk analysis and assessment document and, where applicable, the health and safety document. Internal Security Provisions. Company provisions on environmental protection. Procedures for specific material and product handling and storage operations. Company maintenance plan.

3.3. CAPABILITIES AND ASSESSMENT CRITERIA

C1: Describe, in a general way, the organization and operation of plants for the treatment and beneficiation of minerals and rocks, relating the main work processes and activities to the trades and facilities, as well as to the equipment and machinery used.

CE1.1 Identify the criteria commonly used in the organization of treatment and beneficiation plants to optimize operations and material movements.

CE1.2 Relate the main risks and safety measures to be adopted in treatment and processing plants, identifying personal protective equipment and recognising collective safety means: signage, protection.

CE1.3 Describe the work processes in treatment and beneficiation plants, identifying the main activities to be carried out (crushing, grinding, classification, concentration and storage).

CE1.4 Distinguish the main types of machinery used in crushing, grinding, classification, concentration and storage, describing in general their characteristics, capacities and operation, and relating them to the types of products to be obtained.

CE1.5 Distinguish the main types of systems used for indoor transport (conveyor belts, belt conveyors, monorails, feeders), describing in general terms their characteristics, capacities and operation.

CE1.6 Identify the main jobs involved in the processes and activities to be carried out in treatment and processing plants, indicating the main functions, activities and responsibilities of each one.

CE1.7 List the different installations and auxiliary equipment (air, water, sludge, dust removal) involved in the process, relating them to the different operations.

CE1.8 Identify the main types of intermediate and final products of mineral and rock treatment and beneficiation plants, recognising the main characteristics and basic quality requirements.

C2: Describe, in a general way, the organization and operation of natural stone processing plants, relating the main work processes and activities with the trades and facilities, as well as with the equipment and machinery used, to collaborate in the reception, distribution and storage of natural stone products.

CE2.1 Identify the criteria commonly used in the organization of the production workshop, in order to optimize the available space and minimize operations and material movements.

CE2.2 List the main risks and safety measures to be adopted in the preparation workshop, identifying the personal protective equipment and recognising the collective means of safety: signs, protections or others.

CE2.3 Describe the work processes in a manufacturing workshop, identifying the main activities to be carried out (cut-to-size, special tasks, physical and chemical surface treatments).

CE2.4 Distinguish the main types of machinery used in cut-to-size, surface treatments and special tasks, describing in general their characteristics, capacities and operation, and relating them to the types of stone and the different products to be obtained.

CE2.5 Identify the main jobs involved in the processes and activities to be carried out in the block workshop, indicating the main functions, activities and responsibilities of each one.

CE2.6 List the different installations and auxiliary equipment involved in the process of making natural stone, relating them to the different cutting systems.

CE2.7 Identify the main types of intermediate and final products of natural stone processing plants, recognising the main characteristics and basic quality requirements.

C4: Apply the necessary washing processes for each type of material depending on its actual state and the process to which it is going to be subjected.

CE4.1 List the checks to be carried out prior to washing a block to ensure the safety of operations.

CE4.2 Explain the aspects to be taken into account in order to consider that a stone is properly washed, depending on the process to which it is going to be subjected.

CE4.3 List the machines, auxiliary means and dilutions that are necessary for each type of washing process.

CE4.4 Describe the operations for washing, removing and stabilising natural stone slabs, pointing out the most frequent risks and relating the safety measures to be taken into account in each case.

CE4.5 In a duly characterized practical case, carry out, effectively and safely, the most appropriate washing process for the type of product and/or subsequent process, including the subsequent stabilization of the products.

C5: Apply the most appropriate method to carry out the cleaning of machinery, equipment, facilities and work area, taking into account the safety measures and environmental criteria established

CE5.1 Recognize all the safety devices of the machinery involved in a plant for the treatment of minerals and rocks and the processing of natural stone.

CE5.2 Identify the criteria to be followed to establish or not the cleaning of each machine, equipment or installation, and of each work area, as well as the frequency with which it should be carried out.

CE5.3 Describe the cleaning procedure for each machine or work area, establishing a logical sequence of action and indicating the means to be used in each case.

CE5.4 Recognize, in a given case, the different types of waste that must be collected, as well as the destination or container assigned to each one.

CE5.5 Recognize the safety and signaling elements that must be provided for each machine and work area, as well as at the point where they must be located.

CE5.6 In a duly characterized practical case, perform the most appropriate cleaning process for the type of machine or work area, effectively and safely.

3.4. CONTENTS

1. Techniques, installations and equipment for the industrial processing of natural stone and resulting products

- Types of natural stone. Main features.

- Stone production process. Phases and processes: cutting, surface treatments and machining.

- Main products of natural stone processing. Sheets and boards, standard and custom-made. Slate plates and pieces. Different construction and ornamental elements (balusters, handrails, stairs, cornices, columns, countertops, fireplaces and other unique elements).

- Main equipment and machinery: main types and general characteristics of each.

- Auxiliary installations: electricity, water and compressed air.

- Tools and implements commonly used in the elaboration of stone. Maintenance.

- Cutting tools. Wear and maintenance. Replacement.

-Consumables. Types and classification. Maintenance. Replacement. Withdrawal.

2. Techniques, installations and equipment for the treatment and beneficiation of minerals and rocks

- Main minerals and rocks processed in treatment and beneficiation plants.

- Production process in treatment and beneficiation plants. Main phases and processes: primary and secondary crushing, grinding, sorting and concentration.

- Main products of mineral and rock treatment and beneficiation plants: aggregates of different granulometries, micronized products, concentrated minerals.

- Main equipment and machinery: main types and general characteristics of each.

- Continuous conveyor systems: conveyor belts, belt conveyors, monorails, feeders.

- Auxiliary installations: electricity, water and compressed air, sludge, dust removal.

- Commonly used tools and fixtures. Maintenance.

- Tools for crushing and grinding, sorting and concentration: wear and maintenance. Replacement.

-Consumables. Types and classification. Maintenance. Replacement. Withdrawal.

3. Safety and environmental protection measures in facilities for the processing of natural stone and the treatment and processing and processing of minerals and rocks

- Basic notions about specific safety for each type of process and machinery.

- Safety measures in the handling of products and consumables.

- Personal protective equipment. Classification. Use. Maintenance.

- Means of collective security. Machine safety devices. Installations: protections, railings, signs.

- Safety criteria for traffic in the plant: established itineraries and signs.

- Tools and auxiliary means for the handling of shit. Specific safety standards for cargo handling.

- Stabilization of the various stone and mineral elements. Tools and techniques.

- Chemicals used in the treatment of minerals, rocks and natural stone: classification, handling risks and preventive measures.

- Leftovers and residues. Types. Identification. Storage and retrieval according to their type and condition.

4. Cleaning operations of blocks and natural stone and mineral products.

- Cleaning of blocks and natural stone products. Operational process.

- Cleaning of aggregates and minerals. Operational process.

- Machines, tools and auxiliary means in cleaning operations. Dilutions.

- Removal and stabilization of natural stone slabs

- Safety and Environmental Criteria.

5. Cleaning operations of equipment and work facilities

- Cleaning of facilities and work areas: operational process.
- Cleaning of machinery, equipment and tools: operational process
- Machines, tools and auxiliary means used in the cleaning of machinery and facilities.
- Safety and Environmental Criteria.

6. Waste and Materials Management Operations at Work Facilities

- Facility Cleaning and Waste Collection: Operational Process
- Waste transfer and sorting: operational process
- Machines, tools and auxiliary means used in waste management and classification.
- Safety criteria.
- Environmental criteria in relation to waste treatment and recycling.

3.5. METHODOLOGICAL GUIDELINES

Teaching methodology			
Activity	**Teaching techniques**	**Student work**	**Hours**
Theoretical classes	Lectures on theoretical content. Resolution of doubts raised by students. Virtual Reality content.	Face-to-face:	35
		Non face-to-face:	0
Practical lessons	Work placement in a factory or an enabled special classroom.	Face-to-face:	30
		Non face-to-face:	0
Mentoring	Resolution of doubts about theory, problems and practices.	Face-to-face:	0
		Non face-to-face:	2
		Face-to-face:	3

Official examinations	Preparation, correction and revision of written tests.	Non face-to-face:	0
			70

Activities and evaluation criteria		
Activitiess	**Evaluation systems and criteria**	**Percentage weight (%)**
Written examinations.	Theoretical and practical knowledge acquired by the student will be evaluated.	50
Practical lessons	The knowledge acquired in the internship will be evaluated.	50

Control and monitoring mechanisms
The control and monitoring of student learning will be carried out through the following actions: - Participation in the topics and practical cases raised in class. - Attendance at theory and practical classes. - Tutorials. - Completion of self-assessment questionnaires. - Assessment of the individual written test, or individual and group research work.

3.6. REASONABLE ACCOMMODATION

A1 Adaptation of the speed of work to the psychomotor skills and manual dexterity of the worker. (Especially recommended for disabilities related to the musculoskeletal system and nervous system).

A2 Technical aids and adapted tools such as assistive grip devices, tools with ergonomic grips or assisted lifting devices to reduce the load on the upper extremity. (Especially recommended for musculoskeletal-related disabilities.)

A3 Rotation of tasks to avoid excessive repetition of movements or continuous loading on the affected limb. (Especially recommended for musculoskeletal-related disabilities.)

A4 Installation of ramps or platforms to facilitate access to elevated areas, as well as the

placement of tools and materials at an accessible height. (Especially recommended for musculoskeletal-related disabilities.)

A5 Include assistive and supportive devices for movement, and tools with ergonomic handles or extenders, to prevent muscle fatigue. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A6 Reduction of distances in prolonged standing. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A7 Facilitate accessibility in the work environment, eliminating obstacles, architectural barriers, and/or possible unevenness. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A8 Schedule breaks and/or make work schedules more flexible. Schedule breaks from time to time to facilitate postural change and avoid forced and repetitive positions for a long time. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, respiratory system, cardiovascular system, hematopoietic system, digestive system, genitourinary system, endocrine system, neoplasms, visual system, mental illness).

A9 Reduce or limit manual loading and handling of weights. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, cardiovascular system, digestive system, genitourinary system, neoplasms).

A10 Provide ergonomic chairs with adjustable lumbar support to ensure correct and comfortable posture during waste management tasks. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A11 Use of wheelbarrows or lifting equipment to handle heavy objects or tools with ergonomic handles that minimize physical exertion. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A12 Provide adequate and additional means of transport to facilitate movement through work areas. (Especially recommended for musculoskeletal-related disabilities.)

A13 Design of the work environment in a safe manner, minimizing noise and other sources of sensory stimulation through PPE that may affect operator concentration. (Especially recommended for nervous system-related disabilities.)

A14 Implementation of signs, visual diagrams to help the operator follow procedures and tasks, and organization of work, with clear instructions and procedures. (Especially recommended for nervous system-related disabilities.)

A15 Use of additional personal protective equipment, such as face shields, to protect potential affected areas of the head and face. (Especially recommended for nervous system-related disabilities.)

A16 Control temperature, lighting, and ventilation to avoid any triggers of your condition. (Especially recommended for nervous system-related disabilities.)

A17 Use of PPE (FPP2 mask, splash screens, goggles, gloves,...) that prevent contact and respiration of particles (dust, smoke, combustion, etc.). (Especially recommended for disabilities related to the respiratory system, digestive system, genitourinary system, neoplasms, throat and related structures, skin and appendages).

A18 Improvement of air quality and control in the work environment with adequate exhaust, filtration, and/or ventilation systems. (Especially recommended for respiratory disabilities.)

A19 Maintenance and cleaning of workplaces, machinery and tools, using wet methods or vacuum cleaners instead of others that promote the movement of airborne particles. (Especially recommended for disabilities related to the respiratory system, skin and adnexa); Keep work areas clean, organized, and free of obstacles. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, visual apparatus).

A20 Avoid regular exposure to noise and/or vibrations through the use of appropriate PPE. (Especially recommended for disabilities related to the cardiovascular system, ear, throat and related structures, language); Reduce noise and other visual stimuli that impede the worker's concentration (Especially recommended for disabilities related to mental illness).

A21 Avoid situations of exposure to intense or prolonged stress by limiting the burden of responsibilities, favouring the alternation of tasks and regulated breaks. (Especially recommended for disabilities related to the cardiovascular system, digestive system, mental illness).

A22 Control temperature and humidity to avoid high and low temperature environments. (Especially recommended for disabilities related to the cardiovascular system, hematopoietic system, neoplasms, digestive system, mental illness).

A23 Avoid tasks with the risk of major cuts or injuries, assigning others that are less

physically demanding within the cleaning and waste management station, such as organizing, sorting or controlling the flow of materials. (Especially recommended for disabilities related to the hematopoietic system).

A24 Avoid rotating and/or night shift work, favoring more regular and predictable work for the worker, which implies stability in their meal schedules. Respect the worker's feeding times and needs (Especially recommended for disabilities related to the digestive system).

A25 Have toilets close to the workplace. (Especially recommended for disabilities related to the digestive system, genitourinary system, neoplasms).

A26 Keep hazardous chemicals or materials well stored, maximizing direct and continuous exposure to them. (Especially recommended for skin-related disabilities and adnexa.)

A27 Limit exposure to intense light for a long time; Adjust and/or improve the lighting of the work environment (Especially recommended for visually impaired disabilities).

A28 Place visual cues in large fonts, and braille. (Especially recommended for visually impaired disabilities.)

A29 Add acoustic signals. (Especially recommended for visually impaired disabilities.)

A30 Use of written communication systems and devices (blackboards, signs, etc.), visual communication (graphics, pictograms, signs, etc.), sound communication and/or assisted communication that indicate operational and safety procedures. (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation.)

A31 Have the support of a partner and/or superior in communication and/or have employment with the support of professionals from social organizations that support people with intellectual, sensory or mental disabilities (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation).

A32 Show the tasks to be performed in a practical way and supported by visual means. (Especially recommended for disabilities related to mental retardation.)

A33 Clearly define the worker's tasks and responsibilities, simplify, structure and break

them down into smaller, simpler steps. Establish routines. (Especially recommended for disabilities related to mental retardation and mental illness.)

A34 Provide simplified controls, checklists, access routes and signage. (Especially recommended for disabilities related to mental retardation.)

A35 Continuous feedback and positive reinforcement. (Especially recommended for disabilities related to mental illness.)

A36 Provide adequate workspaces and storage for the use of people of short stature.

3.7. PEDAGOGICAL GUIDELINES

Below, a series of general pedagogical guidelines and adaptations are offered depending on the student body in order to achieve the greatest effectiveness in teaching and a greater degree of academic and learning satisfaction for students, always adapting to the corresponding disability:

OP1. In time, methodology and activity:

OP1.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP1.2 Supervise the student's independent work: monitoring of work, exam dates, activities inside or outside the school.

OP1.3 Have a reference person with whom you can talk and communicate more openly and closely, to whom you can transmit and communicate, above all, your fears and difficulties in general.

OP1.4 Give individual, brief, concrete instructions and offer additional explanations; Try to simplify more abstract concepts, ensuring that you have understood the instructions.

OP1.5 Provide alternative answers that help generate successful responses and promote their strengths in the group, asking questions in which they can feel competent, avoiding error or exposure to situations where they may feel forced or ridiculous, trying to make corrections in private.

OP1.6 Design organisational and methodological strategies for personalised attention to students: multilevel teaching, project-based learning (research, work, problem-based, service-learning, etc.).

OP1.7 Give the student time to organize, carry out and review his/her tasks.

OP1.8 Influence the specific guidelines for the presentation of papers and activities (objective, format, date).

OP1.9 Adapt the typography of the texts used in class to facilitate reading accuracy and speed and thus comprehension.

OP1.10 Use alternative formats to written text for the presentation of work or tasks (computer, audio, etc.).

OP1.11 Allow the use of a written script in oral presentations.

OP1.12 Use lined paper to improve the organization of graphic space

OP2 On assessment techniques and instruments:

OP2.1 Ensure that students have understood the instructions well.

OP2.2 Provide supervision and self-instructions to help students organize their time when taking assessment tests.

OP2.3 Estimate and grant extra time to carry out the assessment tests, taking into account the specific needs of each student and the area.

OP2.4 Adapt the format of the assessment tests to make them easier to read: Arial font type, at 12 pt. With 1.5 line spacing and at least 1.5 inter-spacing.

OP2.5 Facilitate access to information on assessment tests with the reading of the test by teachers.

OP2.6 Ensure that the student has reviewed the exam and has not left questions unanswered by mistake.

OP2.7 Promote the widespread use of varied, diverse, flexible assessment instruments adapted to different learning situations, ensuring that the conditions for carrying out the processes associated with assessment are adapted to the needs of students with specific educational support needs.

OP3 Other measures to address diversity/ Methodological guidelines.

OP3.1 Students with musculoskeletal disabilities-related disabilities and students with nervous-system-related disabilities.

OP3.1.1 Establish an active methodology that favours contact with their environment and motivates them in their acquisitions.

OP3.1.2 Surround him with plenty of manipulative and social stimulation.

OP3.1.3 Make the most of their driving resources.

OP3.1.4 Use of adapted materials, use of computer.

OP3.1.5 Assess progress against baseline knowledge.

OP3.1.6 Evaluate content rather than form.

OP3.1.7 Assess effort or interest.

OP3.1.8 Assess, together with the affected students, the different possibilities that exist to carry out the corresponding activity in the best conditions, according to the degree of disability they present.

OP3.2 Students with disabilities due to deficiencies of the digestive system and genitourinary system.

OP3.2.1 Allow students to use the service whenever they need to.

OP3.3 Students with intellectual disabilities and students with disabilities related to Language Disorders:

OP3.3.1 Provide a place in the front rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.3.2 Provide a regulated, organized and safe physical environment.

OP3.3.3 Ensure friendly and accessible environments (structure, noise level, signage, etc.).

OP3.3.4 Use visual aids in explanations: digital whiteboard, diagrams with the most relevant content including photos/images, etc.

OP3.3.5 Be close to the student when addressing him/her, avoiding possible distractions.

OP3.3.6 If the student has specific reading and/or writing difficulties (dysgraphia, dysorthography), spelling mistakes should not influence the assessment and grading decisively.

OP3.3.7 Develop study strategies and techniques that help compensate for their difficulties.

OP3.4 Students with mental disabilities

OP3.4.1 Provide a place in the first rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.4.2 Enhance tutoring with these students: they can help to know the specific needs of each one.
OP3.4.3 Try to respond to the student's didactic needs: provide teaching materials in advance, facilitate note-taking, or encourage classmates to borrow notes. In this work, it is essential to agree on these needs with the student himself.

OP3.4.4 Be flexible with attendance problems, delays or distractions in class (this may be side effects of drugs or consequences of a crisis).

OP3.4.5 Give sufficient notice of the delivery of assignments or exam dates, in case these coincide with periods of hospital or absenteeism.

OP3.4.6 In group work, allow individual work if there are problems with social relationships.

OP3.4.7 Motivate the student throughout the course.

OP3.5 Students with hearing dysfunction (ear, throat or related structures)

OP3.5.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.5.2 Provide photocopies of class explanations, facilitating note-taking, writing on the blackboard the fundamental aspects of the topics, using a classmate to contrast the information.

OP3.5.3 Encourage participation in class, asking frequently to get feedback on possible difficulties when listening to class explanations.

OP3.5.4 Facilitate access to lip reading, always trying to speak in front of the student.

OP3.5.5 In the correction and evaluation of tests: in all subjects, do not apply those criteria related to written expression such as the use of accents, adequate punctuation, correct agreement between the elements of the sentence, the adequacy of vocabulary, etc.

OP3.5.6 In evaluations, repeat the text several times.

OP3.5.7 Try to write a small script or outline of the development of the class on the board.

OP3.5.8 Communicate important matters by e-mail or in writing well in advance.

OP3.5.9 Do not use videos without subtitles.

OP3.6 Students with visual dysfunction

OP3.6.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.6.2 Ensure that visually impaired pupils make the most of their visual impairment. To do this, it will be necessary to provide them with optimal conditions that facilitate

their learning, such as: brightness, contrast, location close to the blackboard, use of optical and non-optical aids such as lectern or flexo, etc.

OP3.6.3 Visually impaired pupils receive little information from their environment, so we must select for them as far as possible a repertoire of representative activities, standard activities.

OP3.6.4 Starting from the concrete and the particular to the global and general.

OP3.6.5 Do not speak with your back to the classroom when writing on the board. Try not to wander around the classroom while teaching. When speaking, use a normal tone of voice, speak slowly and try to vocalize correctly, but without exaggerating. Do not cover your mouth or have any object (pen, pencil) that makes it difficult to receive information.

OP3.6.6 Write a short script or outline of the development of the class on the board.

OP3.6.7 Communicate important matters by e-mail or in writing well in advance.

OP3.6.8 Do not use videos without subtitles.
OP3.6.9 In the event that students are unable to carry out the corresponding activity due to their visual dysfunction, it will be carried out with the help of a partner who will describe what they are visualizing and who will respond to each situation according to the indications given orally.

4. STORAGE OF CONSUMABLES AND PRODUCTS IN NATURAL STONE FACTORIES AND TREATMENT AND BENEFICIATION OF MINERALS AND ROCKS

4.1. COURSE DESCRIPTION

Concept: Course focused on training in storage of consumables and products in factories for the processing of natural stone and the treatment and beneficiation of minerals and rocks.

Duration: 40 hours

4.2. COMPETENCIES AND LEARNING OUTCOMES

4.2.1. Professional achievements and achievement criteria

RP1: Transport and stockpile consumables and products, safely, manually or using auxiliary elements, to ensure the supply of the machines in the process and/or their storage.

CR1.1 The various consumables and products are stored in such a way that they do not hinder the development of the rest of the work.

CR1.2 In the handling, placement and removal of tools and means of cutting, breaking, grinding, sorting or concentration, the plant operators are assisted, following their instructions at all times.

CR1.3 Consumables, additives and products are handled in accordance with established instructions or procedures.

CR1.4 Sampling is carried out in accordance with established instructions or procedures.

CR1.5 The transport of consumables and products is carried out using the appropriate means depending on their nature and characteristics (weight, dimensions, among others), following established routes and respecting the safety signs.

CR1.6 Specific risks in the collection, handling and transport of consumables and products are identified, adopting appropriate prevention measures, especially with regard to the use and maintenance of personal protective equipment.

CR1.7 Waste, surplus consumables and their packaging are removed from the work areas and deposited in the places provided for this purpose in the company, in compliance with the regulations on the prevention of occupational and environmental risks.

RP2: Clean the natural stone elements, removing any adhered elements, for their proper transformation, storage or dispatch.

CR2.1 Prior to washing, the stone elements are checked to ensure that they are in a safe position.

CR2.2 Washing aids are collected and prepared, leaving them ready for each new use.

CR2.3 The blocks are washed with the appropriate flow rate and pressure, until the adhered material is removed.

CR2.4 The washing of the finished products is carried out with the specified dilution, controlling the flow and pressure, as well as the time of the process, and respecting environmental standards.

CR2.5 The washing of the panels and other finished products is checked to ensure that they are sufficiently clean and prepared for subsequent processing or dispatch.

CR2.6 The boards, once washed, are stabilized, avoiding bending and torsional stresses.

RP3: Clean and condition the machinery, equipment and installations, tools and work area, under the established conditions and complying with safety and environmental protection regulations, for the correct and safe performance of the work.

CR3.1 Machines are checked to ensure that they are safe prior to washing.

CR3.2 Cleaning work is carried out in accordance with the established frequency and/or following the established instructions or procedures.

CR3.3 The cleaning means used are appropriate for each type of machine or tool.

CR3.4 The tools and implements used are removed and placed in the assigned places once the cleaning work has been completed.

CR3.5 Waste, debris and sludge are removed and transferred to established containers and/or landfill.

CR3.6 Work areas are kept in orderly and clean conditions, especially removing excess materials that may affect traffic routes and the performance of the work.

CR3.7 Safety elements (signs, protections, handrails and others) are assembled, maintained and dismantled, following the instructions received and the internal safety provisions.

CR3.8 The auxiliary means requested (ladders, scaffolding, mobile platforms or others) are handled, assembled and dismantled, following the instructions received in terms of mode, arrangement, deadline and safety conditions.

RP4: Perform complementary tasks to assist in the storage and dispatch of goods, following instructions.

CR4.1 The unloading and stacking of products is carried out in the manner and under the conditions specified, and using the appropriate means and equipment.

CR4.2 The storage of materials is carried out in the indicated places, respecting the established arrangement and heights and correctly fitting those materials that require it.

CR4.3 The different products produced are collected and/or placed in the corresponding containers and packaging, following instructions.

CR4.4 The products for which this is established are secured in the containers and packaging, using the prescribed means (shavings, expanded foams, bubble wrap, air bags, strapping, staplers and the like), following the established instructions.

CR4.5 The packaging, containers or containers that protect the goods are checked to ensure that they are in good condition, notifying, where appropriate, the person in charge of any losses due to poor condition or breakage.

CR4.6 It is checked that they do not exceed the storage limits established in the silos and open-air stockpiles.

CR4.7 The quantity, weight, identification and characteristics of the products are checked at the entry and exit of products, recording the necessary information following the established procedures.

CR4.8 The loading of the loads in the external means of transport is carried out, ensuring their integrity, and their internal location is carried out according to the instructions received.

CR4.9 Packaging waste is removed from the work areas and deposited in the designated places in the company, in compliance with environmental standards.

4.2.2. Professional context

Means of production and/or creation of service

Sample collectors. Pressurized water cleaners. Hoses. Brushes. Flow pumps. Shovels. Brooms and brushes. Hand trucks. Waste containers. Packaging, containers and containers. Pneumatic guns, hammers, spikes, kickstands. Flexometer, strapping tapes, live guards and corners, shavings, expanded foams, plastics: bubbles, heat shrinks, air pockets. Staplers, nailers, blowtorches. Cardboard, ropes, self-adhesive tapes. Woods and coinage. Scales.

Work products or results

Products stockpiled and transported. Wear elements replaced. Clean and stabilized natural stone products. Clean and conditioned equipment, machinery and work areas. Wash dilutions. Packaged or packaged products for storage and dispatch. Properly weighed, stacked and stored inbound and outbound products.

Information Used or Generated

Oral or written work instructions. The company's risk analysis and assessment document and, where applicable, the health and safety document. Internal Security Provisions. Company provisions on environmental protection. Procedures for specific material and product handling and storage operations. Company maintenance plan.

4.3. CAPACITIES AND ASSESSMENT CRITERIA

C1: Describe the processes of transport and stockpiling of consumables and intermediate and final products, to help in their reception, distribution and storage, by mechanical and manual means, depending on the various machines existing in a plant for the treatment and beneficiation of minerals and rocks and for the processing of natural stone.

CE1.1 Relate the types of products with the transport systems commonly used for each.

CE1.2 Cite the general criteria commonly used in the storage of in-progress and finished products.

CE1.3 Relate the specific mechanical and manual auxiliary means for the transport of each type and volume of material, pointing out the capacities and limitations of each means.

CE1.4 Identify the appropriate consumables for each process for the treatment of minerals and rocks or the production of natural stone products by their functions and type, recognising them inside and outside their packaging.

CE1.5 List the risks and safety measures to be adopted in the transport and storage of products and consumables, both in terms of people and means of production.

CE1.6 Apply the established criteria and procedures for taking surplus products or waste to the established containers and places.

CE1.7 On a proposed practical case, carry out the handling of consumables and/or products, collecting, transporting and storing them, using the appropriate means safely and efficiently

C2: Apply storage systems according to the different materials and products received, intermediate and final.

CE2.1 Identify the equipment and auxiliary means used in the storage process, pointing out their capacities and limitations, depending on the nature and characteristics (weight, dimensions or others) of the products.

CE2.2 Recognize the different systems for identifying materials and products and, based on this, apply the established procedure for their storage.

CE2.3 Identify the different types of containers and containers, as well as filling and protection materials commonly used for the storage and dispatch of different products.

CE2.4 Relate the necessary checks to be carried out on the packaging, container or container of a piece, before it is introduced.

CE2.5 Identify the surpluses and residues generated in the packaging process, depending on the materials used, relating them to the containers and storage places that correspond to them.

CE2.6 List the risks that exist in the packaging and storage process, relating them to the security measures that must be taken into account in each case.

CE2.7 In a practical case duly characterized with pieces of a certain shape, weight and dimensions, establish and apply a sequence with all the necessary steps to pack and store it safely, including the necessary identification elements.

4.4. CONTENTS

1. Storage and dispatch of stone and minerals.

- General storage criteria. General rules for unloading and stacking products.

- Material and product coding systems. Labels and signage.

- Means of transport used in natural stone processing plants and mineral treatment and beneficiation.

- Tools and auxiliary means for handling loads.

2. Consumable Storage

- Consumables used in natural stone processing and treatment and beneficiation plants. Types and classification.

-Supply. Registration

-Storage.

-Replacement.

-Withdrawal.

3. Containers: use

- Containers, packaging and containers. Types, features, and applications.

- Padding and protective materials. Types, features, and applications.

- Safe placement of products in the corresponding containers.

- General rules for the transport of products.

4.5. METHODOLOGICAL GUIDELINES

Teaching methodology			
Activity	**Teaching techniques**	**Student work**	**Hours**
Theoretical classes	Lectures on theoretical content. Resolution of doubts raised by students. Virtual Reality content.	Face-to-face:	20
		Non face-to-face:	0
Practical lessons	Work placement in a factory or an enabled special classroom.	Face-to-face:	16
		Non face-to-face:	0
Mentoring	Resolution of doubts about theory, problems and practices.	Face-to-face:	0
		Non face-to-face:	2
Official examinations	Preparation, correction and revision of written tests.	Face-to-face:	2
		Non face-to-face:	0
			40

Activities and evaluation criteria		
Activitiess	**Evaluation systems and criteria**	**Percentage weight (%)**
Written examinations.	Theoretical and practical knowledge acquired by the student will be evaluated.	50
Practical lessons	The knowledge acquired in the internship will be evaluated.	50

Control and monitoring mechanisms

The control and monitoring of student learning will be carried out through the following actions:

- Participation in the topics and practical cases raised in class.
- Attendance at theory and practical classes.
- Tutorials.
- Completion of self-assessment questionnaires.
- Assessment of the individual written test, or individual and group research work.

4.6. REASONABLE ACCOMMODATION

A1 Reduce or limit the weights to be loaded and unloaded, and/or processes to be carried out manually. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, cardiovascular system, digestive system, genitourinary system, neoplasms).

A2 Automate machinery and processes as much as possible. (Especially recommended for musculoskeletal-related disabilities.)

A3 Add assistive devices, such as special grips or lower-resistance levers, to reduce strain and make handling easier. (Especially recommended for musculoskeletal-related disabilities.)

A4 Use ergonomics in the truck controls, locating and designing the steering controls so that they are accessible and easy to use even with a single upper limb; with large, easy-to-access buttons, technological systems such as remote control devices or automation systems, obstacle detection sensors, proximity alarms, and automatic braking systems (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A5 Swap tasks to avoid repeated movements by a part of the body (especially hands and arms) on a continuous basis. (Especially recommended for musculoskeletal-related disabilities.)

A6 Reduction of distances in prolonged standing. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A7 Facilitate accessibility in the work environment, eliminating obstacles, architectural barriers, and/or possible unevenness. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A8 Schedule breaks and/or make work schedules more flexible. Schedule breaks from

time to time to facilitate postural change and avoid forced and repetitive positions for a long time. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, respiratory system, cardiovascular system, hematopoietic system, digestive system, genitourinary system, endocrine system, neoplasms, visual system, mental illness).

A9 Include the location and design of steering controls so that they are accessible and easy to operate. Install ergonomic controllers on the truck, such as easy-to-use and easy-to-access levers or joysticks, with intuitive, touch-sensitive controls. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A10 Installation of actuation mechanisms at a height suitable for the use of persons in wheelchairs and/or short stature. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A11 Add assistive devices, such as special grippers and handles to facilitate loading onto the truck if necessary. Hydraulic seat with ergonomic backrest to facilitate the riding posture, with good cushioning to avoid blows to the spine, cushions or additional lumbar supports that help maintain a proper posture without overloading. (Especially recommended for musculoskeletal-related disabilities.)

A12 Establish alternative communication and signage, visual cues to facilitate spatial orientation, load tracking and interaction between the operator and other personnel. (Especially recommended for nervous system-related disabilities.)

A13 Install automated controls, sensor-based assistance systems, and/or ergonomic controls with easy-to-use buttons or levers to facilitate truck operation. (Especially recommended for nervous system-related disabilities.)

A14 Install ergonomic controls, easy-to-reach levers or buttons, and other assistive devices, such as levers with special grips. (Especially recommended for nervous system-related disabilities.)

A15 Install an adapted seat and restraint and assistance systems such as grippers that provide adequate support to the worker during forklift operations. (Especially recommended for nervous system-related disabilities.)

A16 Install an adapted seat that minimizes the number of vibrations. (Especially recommended for nervous system-related disabilities.) Install cushioned seats, padded work surfaces, or any other ergonomic adaptation of machinery. (Especially recommended for skin-related disabilities and adnexa.) Make ergonomic adjustments to the forklift, such as seats, controls and mirrors, automated lifting and lowering mechanisms, or clamping devices to reduce the need for intense physical exertion.

(Especially recommended for neoplasm-related disabilities.)

A17 Use of PPE (FPP2 mask, splash screens, goggles, gloves,...) that prevent contact and respiration of particles (dust, smoke, combustion, etc.). (Especially recommended for disabilities related to the respiratory system, digestive system, genitourinary system, neoplasms, throat and related structures, skin and appendages).

A18 Improvement of air quality and control in the work environment with adequate exhaust, filtration, and/or ventilation systems. (Especially recommended for respiratory disabilities.)

A19 Maintenance and cleaning of workplaces, machinery and tools, using wet methods or vacuum cleaners instead of others that promote the movement of airborne particles. (Especially recommended for disabilities related to the respiratory system, skin and adnexa); Keep work areas clean, organized, and free of obstacles. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, visual apparatus).

A20 Avoid regular exposure to noise and/or vibrations through the use of appropriate PPE. (Especially recommended for disabilities related to the cardiovascular system, ear, throat and related structures, language); Reduce noise and other visual stimuli that impede the worker's concentration (Especially recommended for disabilities related to mental illness).

A21 Avoid situations of exposure to intense or prolonged stress by limiting the burden of responsibilities, favouring the alternation of tasks and regulated breaks. (Especially recommended for disabilities related to the cardiovascular system, digestive system, mental illness).

A22 Control temperature and humidity to avoid high and low temperature environments. (Especially recommended for disabilities related to the cardiovascular system, hematopoietic system, neoplasms, digestive system, mental illness).

A23 Avoid tasks with a risk of major cuts or trauma (Especially recommended for disabilities related to the hematopoietic system).

A24 Avoid rotating and/or night shift work, favoring more regular and predictable work for the worker, which implies stability in their meal schedules. Respect the worker's feeding times and needs (Especially recommended for disabilities related to the digestive system).

A25 Have toilets close to the workplace. (Especially recommended for disabilities related to the digestive system, genitourinary system, neoplasms).

A26 Keep hazardous chemicals or materials well stored, maximizing direct and continuous exposure to them. (Especially recommended for skin-related disabilities and adnexa.)

A27 Limit exposure to intense light for a long time; Adjust and/or improve the lighting of the work environment (Especially recommended for visually impaired disabilities).

A28 Place visual cues in large fonts, and braille. (Especially recommended for visually impaired disabilities.)

A29 Add acoustic signals. (Especially recommended for visually impaired disabilities.)

A30 Use of written communication systems and devices (blackboards, signs,...), visual communication (graphics, pictograms, signs, etc.), sound communication and/or assisted communication that indicate operational and safety procedures. (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation.)

A31 Have the support of a partner and/or superior in communication and/or have employment with the support of professionals from social organizations that support people with intellectual, sensory or mental disabilities (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation).

A32 Use teaching and training methods in the operation of machinery supported by visual and practical resources that facilitate comprehension and learning. (Especially recommended for disabilities related to mental retardation.)

A33 Provide structured, clear, and simple work instructions. Establish routines. (Especially recommended for disabilities related to mental retardation and mental illness.)

A34 Provide simplified controls, checklists, access routes and signage. (Especially recommended for disabilities related to mental retardation.)

A35 Continuous feedback and positive reinforcement. (Especially recommended for

disabilities related to mental illness.)

4.7. PEDAGOGICAL GUIDELINES

Below, a series of general pedagogical guidelines and adaptations are offered depending on the student body in order to achieve the greatest effectiveness in teaching and a greater degree of academic and learning satisfaction for students, always adapting to the corresponding disability:

OP1. In time, methodology and activity:

OP1.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP1.2 Supervise the student's independent work: monitoring of work, exam dates, activities inside or outside the school.

OP1.3 Have a reference person with whom you can talk and communicate more openly and closely, to whom you can transmit and communicate, above all, your fears and difficulties in general.

OP1.4 Give individual, brief, concrete instructions and offer additional explanations; Try to simplify more abstract concepts, ensuring that you have understood the instructions.

OP1.5 Provide alternative answers that help generate successful responses and promote their strengths in the group, asking questions in which they can feel competent, avoiding error or exposure to situations where they may feel forced or ridiculous, trying to make corrections in private.

OP1.6 Design organisational and methodological strategies for personalised attention to students: multilevel teaching, project-based learning (research, work, problem-based, service-learning, etc.).

OP1.7 Give the student time to organize, carry out and review his/her tasks.

OP1.8 Influence the specific guidelines for the presentation of papers and activities (objective, format, date).

OP1.9 Adapt the typography of the texts used in class to facilitate reading accuracy and speed and thus comprehension.

OP1.10 Use alternative formats to written text for the presentation of work or tasks (computer, audio, etc.).

OP1.11 Allow the use of a written script in oral presentations.

OP1.12 Use lined paper to improve the organization of graphic space

OP2 On assessment techniques and instruments:

OP2.1 Ensure that students have understood the instructions well.

OP2.2 Provide supervision and self-instructions to help students organize their time when taking assessment tests.

OP2.3 Estimate and grant extra time to carry out the assessment tests, taking into account the specific needs of each student and the area.

OP2.4 Adapt the format of the assessment tests to make them easier to read: Arial font type, at 12 pt. With 1.5 line spacing and at least 1.5 inter-spacing.

OP2.5 Facilitate access to information on assessment tests with the reading of the test by teachers.

OP2.6 Ensure that the student has reviewed the exam and has not left questions unanswered by mistake.

OP2.7 Promote the widespread use of varied, diverse, flexible assessment instruments adapted to different learning situations, ensuring that the conditions for carrying out the processes associated with assessment are adapted to the needs of students with specific educational support needs.

OP3 Other measures to address diversity/ Methodological guidelines.

OP3.1 Students with musculoskeletal disabilities-related disabilities and students with nervous-system-related disabilities.

OP3.1.1 Establish an active methodology that favours contact with their environment and motivates them in their acquisitions.

OP3.1.2 Surround him with plenty of manipulative and social stimulation.

OP3.1.3 Make the most of their driving resources.

OP3.1.4 Use of adapted materials, use of computer.

OP3.1.5 Assess progress against baseline knowledge.

OP3.1.6 Evaluate content rather than form.

OP3.1.7 Assess effort or interest.

OP3.1.8 Assess, together with the affected students, the different possibilities that exist to carry out the corresponding activity in the best conditions, according to the degree of disability they present.

OP3.2 Students with disabilities due to deficiencies of the digestive system and genitourinary system.

OP3.2.1 Allow students to use the service whenever they need to.

OP3.3 Students with intellectual disabilities and students with disabilities related to Language Disorders:

OP3.3.1 Provide a place in the front rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.3.2 Provide a regulated, organized and safe physical environment.

OP3.3.3 Ensure friendly and accessible environments (structure, noise level, signage, etc.).

OP3.3.4 Use visual aids in explanations: digital whiteboard, diagrams with the most relevant content including photos/images, etc.

OP3.3.5 Be close to the student when addressing him/her, avoiding possible distractions.

OP3.3.6 If the student has specific reading and/or writing difficulties (dysgraphia, dysorthography), spelling mistakes should not influence the assessment and grading decisively.

OP3.3.7 Develop study strategies and techniques that help compensate for their difficulties.

OP3.4 Students with mental disabilities

OP3.4.1 Provide a place in the first rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.4.2 Enhance tutoring with these students: they can help to know the specific needs of each one.
OP3.4.3 Try to respond to the student's didactic needs: provide teaching materials in advance, facilitate note-taking, or encourage classmates to borrow notes. In this work, it is essential to agree on these needs with the student himself.

OP3.4.4 Be flexible with attendance problems, delays or distractions in class (this may be side effects of drugs or consequences of a crisis).

OP3.4.5 Give sufficient notice of the delivery of assignments or exam dates, in case these coincide with periods of hospital or absenteeism.

OP3.4.6 In group work, allow individual work if there are problems with social relationships.

OP3.4.7 Motivate the student throughout the course.

OP3.5 Students with hearing dysfunction (ear, throat or related structures)

OP3.5.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.5.2 Provide photocopies of class explanations, facilitating note-taking, writing on the blackboard the fundamental aspects of the topics, using a classmate to contrast the information.

OP3.5.3 Encourage participation in class, asking frequently to get feedback on possible difficulties when listening to class explanations.

OP3.5.4 Facilitate access to lip reading, always trying to speak in front of the student.

OP3.5.5 In the correction and evaluation of tests: in all subjects, do not apply those criteria related to written expression such as the use of accents, adequate punctuation, correct agreement between the elements of the sentence, the adequacy of vocabulary, etc.

OP3.5.6 In evaluations, repeat the text several times.

OP3.5.7 Try to write a small script or outline of the development of the class on the board.

OP3.5.8 Communicate important matters by e-mail or in writing well in advance.

OP3.5.9 Do not use videos without subtitles.

OP3.6 Students with visual dysfunction

OP3.6.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.6.2 Ensure that visually impaired pupils make the most of their visual impairment. To do this, it will be necessary to provide them with optimal conditions that facilitate their learning, such as: brightness, contrast, location close to the blackboard, use of optical and non-optical aids such as lectern or flexo, etc.

OP3.6.3 Visually impaired pupils receive little information from their environment, so we must select for them as far as possible a repertoire of representative activities, standard activities.

OP3.6.4 Starting from the concrete and the particular to the global and general.

OP3.6.5 Do not speak with your back to the classroom when writing on the board. Try not to wander around the classroom while teaching. When speaking, use a normal tone of voice, speak slowly and try to vocalize correctly, but without exaggerating. Do not

cover your mouth or have any object (pen, pencil) that makes it difficult to receive information.

OP3.6.6 Write a short script or outline of the development of the class on the board.

OP3.6.7 Communicate important matters by e-mail or in writing well in advance.

OP3.6.8 Do not use videos without subtitles.
OP3.6.9 In the event that students are unable to carry out the corresponding activity due to their visual dysfunction, it will be carried out with the help of a partner who will describe what they are visualizing and who will respond to each situation according to the indications given orally.

5. LOAD HANDLING WITH FORKLIFTS

5.1. COURSE DESCRIPTION

Concept: Course focused on training in load handling with forklifts in natural stone processing plants and the treatment and beneficiation of minerals and rocks.

Duration: 50 hours.

5.2. COMPETENCIES AND LEARNING OUTCOMES

5.2.1. Professional achievements and achievement criteria

RP1: Correctly interpret movement orders for materials and products for loading or unloading, in order to proceed with their storage, supply, dispatch or any other movement in the logistics flow.

CR1.1 The materials and products to be moved are identified, verifying their coincidence with the written or verbal orders received.

CR1.2 The material or product is accepted only if the unit load does not show any apparent deformations or damages, and if they are detected, the person in charge is immediately informed.

CR1.3 The means of transport (conventional forklift, reach truck, manual or electric pallet truck, stacker, among others) are selected according to the load, operations and conditions in which they must be carried out.

CR1.4 In the event of detection of an error or non-conformity of the load, the person in charge of the service is immediately contacted.

RP2: Correctly handle products and unit loads for subsequent handling, following the procedural instructions or orders received.

CR2.1 The different means of handling are used according to protocol, following occupational risk prevention regulations and respecting the environment.

CR2.2 Each unit load or product handled is checked to ensure that its external appearance is in accordance with the established protocol.

CR2.3 Loads removed by unstowage or unstacking from elevated areas are immediately lowered to ground level before manoeuvres are carried out to avoid risks (overturning of the forklift, risk of accident for the operator and surrounding personnel, damage to installations, among others).

CR2.4 The load is correctly deposited in the assigned space or alveolus (racking, or at floor level), placing the truck at right angles to the stacked rack or load and with the mast in a vertical position.

RP3: Operate self-propelled or manual forklifts, following the established procedures, observing the regulations for the prevention of environmental occupational risks.

CR3.1 The operator correctly uses the load handling equipment according to the specific safety information received.

CR3.2 When moving loads, the truck's nominal load capacity or residual capacity in the event of an attachment being installed is always respected.

CR3.3 The arrangement and location of the load and its retention in case of the use of implements, avoids any unforeseen or unsafe movement.

CR3.4 Journeys are made on signposted traffic lanes and, if possible, separated from pedestrian traffic, respecting the signage provided for safe driving.

CR3.5 The operator operates the truck using personal protective equipment and the seat belt or restraint system at all times, in conditions of sufficient visibility and making use, when necessary, of the acoustic and light warning signals.

CR3.6 The slope is driven in reverse, with no changes of direction on the slope.

CR3.7 The truck is operated in conditions of correct visibility and otherwise the vehicle is driven in reverse, using the acoustic and light warning signals.

CR3.8 In all situations, the operator must not transport people on the forklift.

CR3.9 Trucks are parked in assigned and authorised areas and the ignition key is removed and the handbrake is applied.

RP4: Carry out first-level maintenance of self-propelled forklifts or manual traction trucks, ensuring compliance with the minimum health and safety provisions established for their use.

CR4.1 The elements provided for safe driving and handling, such as brakes, tire condition, lifting system, lack of hydraulic fluid or fuel leaks, acoustic and visual signals, among others, are checked within the established periods.

CR4.2 The technical revisions established in the current legislation on the construction conditions of the equipment for its safe use are known within the scope of their attributions, and the non-compliances are reported to be corrected.

CR4.3 First-level maintenance is carried out taking into account the technical documentation and procedures established by the company.

CR4.4 Detected faults, especially those that may affect safe operation and handling, result in the equipment being stopped and the immediate superior being notified for repair.

RP5: Load or unload materials and products in accordance with the instructions received and, where appropriate, under the supervision of a manager.

CR5.1 The quantities to be delivered or received are verified according to the delivery or receipt note respectively.

CR5.2 Goods are handled using appropriate means to avoid alteration or damage.

CR5.3 In each unit load, it is checked that the packaging, containers or containers that protect the goods are in good condition, notifying, where appropriate, the person in charge of the losses due to poor condition or breakage.

CR5.4 The placement of the loads in the external means of transport is carried out ensuring the integrity of the same, and their internal location is carried out according to the instructions received.

RP6: Transport and supply raw materials and materials to the production lines, as well as remove the waste generated in the production processes to the areas provided for this purpose.

CR6.1 The outbound/delivery order for materials, components or supplies is received according to established procedures and is interpreted to prepare them in accordance with the instructions received.

CR6.2 The transport of raw materials is carried out using the established means, in the areas authorized for this purpose, in an appropriate manner and at the scheduled time, in order to avoid malfunctions in production.

CR6.3 The waste generated is transported with prior authorisation, stating that it has received, where appropriate, the appropriate treatments to avoid contamination of the environment or health.

CR6.4 The waste generated is safely transported and deposited in the designated places or areas to avoid contamination of the environment.

RP7: Adopt the safety measures established for the prevention of occupational and health risks in workers.

CR7.1 In the activities that require it, according to the occupational risk prevention plan, the required personal protective equipment is used.

CR7.2 The manual handling of unit loads complies with the regulatory provisions established on this matter, to avoid the risk of back trauma, among others.

CR7.3 Protective equipment is kept in perfect working order.

CR7.4 Truck driving and load handling always takes into account the potential risks to third parties.

CR7.5 Forklift parking areas are kept marked and clear of materials or elements that may pose risks to driving and signposted.

RP8: Collaborate in stock control by transmitting information on the movement of loads.

CR8.1 The information that is transmitted accurately captures the unit loads handled.

CR8.2 Data information is transmitted in digital form by means of portable equipment, or in written form established by the company.

CR8.3 The information generated is provided at the time established by the responsible party or in accordance with the company's rules.

5.2.2. Professional context

Means of production and/or creation of service

Self-propelled forklifts, electric or thermal, with the required nominal load capacity. Hand trucks. Portable data transmission equipment. Barcode readers and others. Containers and pallets. Racking suitable for the type of load. Goods of different origins and natures.

Work products or results

Unit loads handled, transported, stowed or stacked.

Information Used or Generated

Used: Regulations that develop the law on the prevention of occupational risks, establishing the minimum health and safety provisions. Ministerial orders approving the regulations for manual handling of loads, as well as those for self-propelled forklifts. Orders for the movement of loading or unloading of products, transport and/or internal supply. Coding of materials and products. Une. Documentation issued by the National Institute for Occupational Safety and Hygiene or other public or private documents. Generated: Written and digital documents for the control of the movement and transport of materials and products.

5.3. CAPACITIES AND ASSESSMENT CRITERIA

C1: Identify the basic conditions for handling materials and products for loading or unloading in relation to their nature, condition, quantities, protection and means of transport used.

CE1.1 Recognize the documentation or instructions that must accompany the goods to be loaded, unloaded or transferred in their logistics flow.

CE1.2 List the different forms of packaging and/or protective packaging used that contain materials and products, relating them to their nature and state of conservation.

CE1.3 Recognize the methods of measuring and calculating loads for their correct handling.

CE1.4 List the different internal and external means of transport, their basic conditions of use, as well as their relationship with the loads they handle.

CE1.5 In the case of load handling:

- Recognize and interpret the documentation presented in different media.

- Identify if the type of packaging or packaging is correct.

- Observe whether the load meets the dimensions and weight provided according to the overall work environment.

- Recognize if the selected handling equipment is suitable for the load.

C2: Classify and describe the different types of palletizing, relating them to the way in which the load to be transported is constituted.

CE2.1 Identify the basic ways of constituting unit loads.

CE2.2 Explain the conditions that packaging or containers must meet in order to constitute a unit load.

CE2.3 Identify and classify the different types of pallets and explain their fundamental applications.

CE2.4 Explain the variations in the weight yield of the load moved, depending on the use of the available volume, according to the shapes of the products or their packaging.

CE2.5 In a practical case of handling materials and products in a food industry duly characterized:

- Interpret the information provided.

- Locate the physical location of the cargo.

- Check that the packaging, as well as the materials or products meet the safety conditions.

- Check that the type of pallet or small metal container selected is the most suitable for handling and transporting the unit load, in safe conditions.

C3: Interpret and apply the regulations relating to the prevention of occupational risks and the health of workers.

CE3.1 Recognize the risks derived from the manual handling of loads: falling objects, contusions, lifting postures, repetitive overexertion, fractures, musculoskeletal injuries and others.

CE3.2 Recognize the risks derived from the operation of self-propelled machines and manual traction or push, such as: entrapment, cuts, overexertion, repetitive positional fatigue, torsions, vibrations, noise, gases, and others.

CE3.3 Distinguish the different types of personal protective equipment (PPE) appropriate to each risk.

CE3.4 Identify action measures in emergency situations.

CE3.5 In a perfectly defined simulated case of loading, transport and unloading:

- Identify the most appropriate personal protective equipment.

- Recognize the risks arising from cargo handling.

- Identify the risks arising from the handling of transport, stowage/unstowage, stacking/unstacking of cargo.

- Detail possible emergency situations that may arise.

C4: Interpret the symbology used in the signs of the environment and in the means of transport.

CE4.1 List the duties, rights and rules of conduct of people who handle and transport loads.

CE4.2 Identify the mandatory information signs and plaques that refer to the load, as well as other information symbols that the forklift must carry.

CE4.3 Identify and interpret the standardised signs that must delimit specific work areas, those reserved for pedestrians and others located on traffic routes, and act in accordance with the limitations of the warehouse in the event of indoor handling.

CE4.4 Identify the light and acoustic signals that forklifts must have, relating them to their typology and standardised location.

C5: Identify the elements of the machines intended for safe driving, as well as first-level maintenance operations.

CE5.1 Interpret on forklifts (or models) the controls, systems and driving and handling elements, as well as the fuel indicators, battery charge level and others included in the forklift control panel.

CE5.2 Interpret the operations that correspond to a primary level of the maintenance manual in the instructions of the maintenance manual.

CE5.3 Identify those anomalies that, affecting safe driving or handling, must be reported for immediate repair and may cause the forklift to stop.

CE5.4 In a practical case in which the truck shows anomalies:

- Detect anomalies.

- Identify those that may be caused by manufacturing or maintenance defects.

- Determine if there are any breakdowns whose repair exceeds their responsibility and should be reported to the appropriate party.

- Carry out maintenance operations that correspond to their level of responsibility.

C6: Handle loads and/or drive forklifts, carrying out conventional operations of loading, transporting and unloading materials or products, taking into account safety measures, risk prevention and signage in the work environment.

CE6.1 Locate the location of the steering and operating controls of the forklifts, the function that each one performs and the control indicators.

CE6.2 Classify and identify the different basic types of forklifts, relating them to their applications (horizontal transport, tractor, push, vertical mast lift, tilting, and others) and load capacity, taking into account the lifting height, the distance from the centre of gravity of the load to the heel of the fork or the use of implements.

CE6.3 Explain the basic conditions of load stability and possibilities of overturning during manoeuvres, relating them to:

- Load securing and lifting systems and devices.

- Centres of gravity of the truck and the load handled.

- Condition of the work floor.

CE6.4 Drive self-propelled and manual forklifts empty, performing braking, parking, reversing and descending manoeuvres on a slope, and carrying out the same operations with the maximum permissible load.

CE6.5 Pick up unit loads by inserting the fork fully under the pallet and carry out the manoeuvre of lifting and tilting the mast backwards, respecting the size and height of the load to facilitate visibility.

CE6.6 Drive self-propelled and manual forklifts with loads, controlling their stability, respecting traffic signals, using acoustic or light signals when necessary and performing braking, parking, reversing and descending manoeuvres on slopes, when required by the circulation and storage of the same, safely and avoiding occupational risks.

CE6.7 Carry out the handling of loads, in an aisle delimited by racks, of a width equal to the length of the counterbalanced truck, increased in the length of the load and 0.4 m of safety margin:

- Carry out operations to approach the location where the stowage or unstowage of a palletized unit load at third height must be carried out.

- Perform a 90º turning manoeuvre for stowage and unstowage.

- Be in front of the socket intended for loading (or unstowing) in a single manoeuvre.

- Use, if necessary, lateral displacement for the operation.

C7: List the basic conditions for transporting and supplying raw materials and materials to production lines.

CE7.1 Identify the basic ways of preparing and transporting raw materials and products to constitute unit loads.

CE7.2 List the basic additional precautions to be taken into account in the case of transporting and lifting dangerous loads (corrosive or flammable chemicals, harmful to health, explosives, pollutants, among others).

CE7.3 Recognize the standards established for fires, deflagrations and evacuation procedures.

CE7.4 Relate the types of forklifts and their characteristics, with possibilities of use in special industrial environments (explosives industries, chemical industry and others).

C8: Fill in the documentation generated by the movement of cargo in the medium established by the company.

CE8.1 Describe the most common information contained in delivery notes and the most common formats used as supports.

CE8.2 Identify the main characteristics of the supports or equipment that are usually used to collect information on load movements.

CE8.3 Describe the possibilities of transmitting information by digital means.

CE8.4 Carry out the transmission of data by digital means, duly characterized:

- Operate a portable data transmission equipment.

- Transmit information on the loading and unloading movements carried out.

5.4. CONTENTS

1. Handling and transport of goods

- Internal logistics flow of cargo and services. Socio-economic significance.

- Storage, supply and dispatch of goods.

- EU and Spanish regulations on the handling of goods.

- Prevention of occupational risks and safety measures in the transport of goods.

- Internal and external means of transport of goods. Basic conditions.

- Symbology and signage of the environment and means of transport: Plaques, illuminated and acoustic information signs.

- Unit load. Measurement and calculation of loads.

- Documentation that accompanies the goods.

- Documentation generated by the movement of loads. Digital transmission.

2. Packaging and palletizing of goods.

- Types of packaging and containers in the industry.

- Packaging conditions for the protection of products.

- Packaging conditions for the safe transport of products.

- Types of palletizing. Applications according to types of goods.

- Conditions that unit loads must meet.

- Precautions and measures to be taken with dangerous cargoes.

3. Forklifts for the transport of goods.

- Classification, types and uses of forklifts; Manual and automotive: heat engines, electric motors.

- Main elements of the different types of forklifts:

- Driving elements.

- Forklift control indicators.

- Acoustic and visual signals from the trucks.

- Basic maintenance and malfunction indicators.

4. Forklift handling and driving.

- Steering axis.

- Accessing and lowering the truck.

- Use of restraint systems, cab, seat belt.

- Starting and stopping the truck.

- Circulation: speed of travel, trajectory, nature and condition of the floor, etc.

-Maneuvers. Braking, parking, reversing, descending on a slope.

- Accelerations, incorrect manoeuvres.

- Loading and unloading manoeuvres.

- Lifting the load.

5. Loading and unloading of goods.

- Load stability. Notions of balance.

- Ley de la palanca.

- Center of gravity of the load.

- Loss of stability of the truck.

- Avoidance of transverse or longitudinal rollovers.

- Dynamic and static behaviour of the loaded truck.

- Incorrect placement of the load on the truck. Overload.

- Ways of placing goods on the racks.

5.5. METHODOLOGICAL GUIDELINES

Teaching methodology			
Activity	**Teaching techniques**	**Student work**	**Hours**
Theoretical classes	Lectures on theoretical content. Resolution of doubts raised by students. Virtual Reality content.	Face-to-face:	25
		Non face-to-face:	0
Practical lessons		Face-to-face:	20

	Work placement in a factory or an enabled special classroom.	Non face-to-face:	0
Mentoring	Resolution of doubts about theory, problems and practices.	Face-to-face:	0
		Non face-to-face:	2
Official examinations	Preparation, correction and revision of written tests.	Face-to-face:	3
		Non face-to-face:	0
			50

Activities and evaluation criteria		
Activitiess	**Evaluation systems and criteria**	**Percentage weight (%)**
Written examinations.	Theoretical and practical knowledge acquired by the student will be evaluated.	50
Practical lessons	The knowledge acquired in the internship will be evaluated.	50

Control and monitoring mechanisms
The control and monitoring of student learning will be carried out through the following actions: - Participation in the topics and practical cases raised in class. - Attendance at theory and practical classes. - Tutorials. - Completion of self-assessment questionnaires. - Assessment of the individual written test, or individual and group research work.

5.6. REASONABLE ACCOMMODATION

A1 Reduce or limit the weights to be loaded and unloaded, and/or processes to be carried out manually. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, cardiovascular system, digestive system, genitourinary system, neoplasms).

A2 Automate machinery and processes as much as possible. (Especially recommended for musculoskeletal-related disabilities.)

A3 Add assistive devices, such as special grips or lower-resistance levers, to reduce strain and make handling easier. (Especially recommended for musculoskeletal-related disabilities.)

A4 Use ergonomics in the truck controls, locating and designing the steering controls so that they are accessible and easy to use even with a single upper limb; with large, easy-to-access buttons, technological systems such as remote control devices or automation systems, obstacle detection sensors, proximity alarms, and automatic braking systems (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A5 Swap tasks to avoid repeated movements by a part of the body (especially hands and arms) on a continuous basis. (Especially recommended for musculoskeletal-related disabilities.)

A6 Reduction of distances in prolonged standing. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A7 Facilitate accessibility in the work environment, eliminating obstacles, architectural barriers, and/or possible unevenness. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A8 Schedule breaks and/or make work schedules more flexible. Schedule breaks from time to time to facilitate postural change and avoid forced and repetitive positions for a long time. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, respiratory system, cardiovascular system, hematopoietic system, digestive system, genitourinary system, endocrine system, neoplasms, visual system, mental illness).

A9 Include the location and design of steering controls so that they are accessible and easy to operate. Install ergonomic controllers on the truck, such as easy-to-use and easy-to-access levers or joysticks, with intuitive, touch-sensitive controls. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A10 Installation of actuation mechanisms at a height suitable for the use of persons in wheelchairs and/or short stature. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A11 Add assistive devices, such as special grippers and handles to facilitate loading onto the truck if necessary. Hydraulic seat with ergonomic backrest to facilitate the riding

posture, with good cushioning to avoid blows to the spine, cushions or additional lumbar supports that help maintain a proper posture without overloading. (Especially recommended for musculoskeletal-related disabilities.)

A12 Establish alternative communication and signage, visual cues to facilitate spatial orientation, load tracking and interaction between the operator and other personnel. (Especially recommended for nervous system-related disabilities.)

A13 Install automated controls, sensor-based assistance systems, and/or ergonomic controls with easy-to-use buttons or levers to facilitate truck operation. (Especially recommended for nervous system-related disabilities.)

A14 Install ergonomic controls, easy-to-reach levers or buttons, and other assistive devices, such as levers with special grips. (Especially recommended for nervous system-related disabilities.)

A15 Install an adapted seat and restraint and assistance systems such as grippers that provide adequate support to the worker during forklift operations. (Especially recommended for nervous system-related disabilities.)

A16 Install an adapted seat that minimizes the number of vibrations. (Especially recommended for nervous system-related disabilities.) Install cushioned seats, padded work surfaces, or any other ergonomic adaptation of machinery. (Especially recommended for skin-related disabilities and adnexa.) Make ergonomic adjustments to the forklift, such as seats, controls and mirrors, automated lifting and lowering mechanisms, or clamping devices to reduce the need for intense physical exertion. (Especially recommended for neoplasm-related disabilities.)

A17 Use of PPE (FPP2 mask, splash screens, goggles, gloves,...) that prevent contact and respiration of particles (dust, smoke, combustion, etc.). (Especially recommended for disabilities related to the respiratory system, digestive system, genitourinary system, neoplasms, throat and related structures, skin and appendages).

A18 Improvement of air quality and control in the work environment with adequate exhaust, filtration, and/or ventilation systems. (Especially recommended for respiratory disabilities.)

A19 Maintenance and cleaning of workplaces, machinery and tools, using wet methods or vacuum cleaners instead of others that promote the movement of airborne particles. (Especially recommended for disabilities related to the respiratory system, skin and adnexa); Keep work areas clean, organized, and free of obstacles. (Especially recommended for disabilities related to the musculoskeletal system, nervous system,

hematopoietic system, visual apparatus).

A20 Avoid regular exposure to noise and/or vibrations through the use of appropriate PPE. (Especially recommended for disabilities related to the cardiovascular system, ear, throat and related structures, language); Reduce noise and other visual stimuli that impede the worker's concentration (Especially recommended for disabilities related to mental illness).

A21 Avoid situations of exposure to intense or prolonged stress by limiting the burden of responsibilities, favouring the alternation of tasks and regulated breaks. (Especially recommended for disabilities related to the cardiovascular system, digestive system, mental illness).

A22 Control temperature and humidity to avoid high and low temperature environments. (Especially recommended for disabilities related to the cardiovascular system, hematopoietic system, neoplasms, digestive system, mental illness).

A23 Avoid tasks with a risk of major cuts or trauma (Especially recommended for disabilities related to the hematopoietic system).

A24 Avoid rotating and/or night shift work, favoring more regular and predictable work for the worker, which implies stability in their meal schedules. Respect the worker's feeding times and needs (Especially recommended for disabilities related to the digestive system).

A25 Have toilets close to the workplace. (Especially recommended for disabilities related to the digestive system, genitourinary system, neoplasms).

A26 Keep hazardous chemicals or materials well stored, maximizing direct and continuous exposure to them. (Especially recommended for skin-related disabilities and adnexa.)

A27 Limit exposure to intense light for a long time; Adjust and/or improve the lighting of the work environment (Especially recommended for visually impaired disabilities).

A28 Place visual cues in large fonts, and braille. (Especially recommended for visually impaired disabilities.)

A29 Add acoustic signals. (Especially recommended for visually impaired disabilities.)

A30 Use of written communication systems and devices (blackboards, signs,...), visual communication (graphics, pictograms, signs, etc.), sound communication and/or assisted communication that indicate operational and safety procedures. (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation.)

A31 Have the support of a partner and/or superior in communication and/or have employment with the support of professionals from social organizations that support people with intellectual, sensory or mental disabilities (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation).

A32 Use teaching and training methods in the operation of machinery supported by visual and practical resources that facilitate comprehension and learning. (Especially recommended for disabilities related to mental retardation.)

A33 Provide structured, clear, and simple work instructions. Establish routines. (Especially recommended for disabilities related to mental retardation and mental illness.)

A34 Provide simplified controls, checklists, access routes and signage. (Especially recommended for disabilities related to mental retardation.)

A35 Continuous feedback and positive reinforcement. (Especially recommended for disabilities related to mental illness.)

5.7. PEDAGOGICAL GUIDELINES

Below, a series of general pedagogical guidelines and adaptations are offered depending on the student body in order to achieve the greatest effectiveness in teaching and a greater degree of academic and learning satisfaction for students, always adapting to the corresponding disability:

OP1. In time, methodology and activity:

OP1.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP1.2 Supervise the student's independent work: monitoring of work, exam dates, activities inside or outside the school.

OP1.3 Have a reference person with whom you can talk and communicate more openly and closely, to whom you can transmit and communicate, above all, your fears and difficulties in general.

OP1.4 Give individual, brief, concrete instructions and offer additional explanations; Try to simplify more abstract concepts, ensuring that you have understood the instructions.

OP1.5 Provide alternative answers that help generate successful responses and promote their strengths in the group, asking questions in which they can feel competent, avoiding error or exposure to situations where they may feel forced or ridiculous, trying to make corrections in private.

OP1.6 Design organisational and methodological strategies for personalised attention to students: multilevel teaching, project-based learning (research, work, problem-based, service-learning, etc.).

OP1.7 Give the student time to organize, carry out and review his/her tasks.

OP1.8 Influence the specific guidelines for the presentation of papers and activities (objective, format, date).

OP1.9 Adapt the typography of the texts used in class to facilitate reading accuracy and speed and thus comprehension.

OP1.10 Use alternative formats to written text for the presentation of work or tasks (computer, audio, etc.).

OP1.11 Allow the use of a written script in oral presentations.

OP1.12 Use lined paper to improve the organization of graphic space

OP2 On assessment techniques and instruments:

OP2.1 Ensure that students have understood the instructions well.

OP2.2 Provide supervision and self-instructions to help students organize their time when taking assessment tests.

OP2.3 Estimate and grant extra time to carry out the assessment tests, taking into account the specific needs of each student and the area.

OP2.4 Adapt the format of the assessment tests to make them easier to read: Arial font type, at 12 pt. With 1.5 line spacing and at least 1.5 inter-spacing.

OP2.5 Facilitate access to information on assessment tests with the reading of the test by teachers.

OP2.6 Ensure that the student has reviewed the exam and has not left questions unanswered by mistake.

OP2.7 Promote the widespread use of varied, diverse, flexible assessment instruments adapted to different learning situations, ensuring that the conditions for carrying out the processes associated with assessment are adapted to the needs of students with specific educational support needs.

OP3 Other measures to address diversity/ Methodological guidelines

OP3.1 Students with musculoskeletal disabilities-related disabilities and students with nervous-system-related disabilities.

OP3.1.1 Establish an active methodology that favours contact with their environment and motivates them in their acquisitions.

OP3.1.2 Surround him with plenty of manipulative and social stimulation.

OP3.1.3 Make the most of their driving resources.

OP3.1.4 Use of adapted materials, use of computer.

OP3.1.5 Assess progress against baseline knowledge.

OP3.1.6 Evaluate content rather than form.

OP3.1.7 Assess effort or interest.

OP3.1.8 Assess, together with the affected students, the different possibilities that exist to carry out the corresponding activity in the best conditions, according to the degree of disability they present.

OP3.2 Students with disabilities due to deficiencies of the digestive system and genitourinary system.

OP3.2.1 Allow students to use the service whenever they need to.

OP3.3 Students with intellectual disabilities and students with disabilities related to Language Disorders:

OP3.3.1 Provide a place in the front rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.3.2 Provide a regulated, organized and safe physical environment.

OP3.3.3 Ensure friendly and accessible environments (structure, noise level, signage, etc.).

OP3.3.4 Use visual aids in explanations: digital whiteboard, diagrams with the most relevant content including photos/images, etc.

OP3.3.5 Be close to the student when addressing him/her, avoiding possible distractions.

OP3.3.6 If the student has specific reading and/or writing difficulties (dysgraphia, dysorthography), spelling mistakes should not influence the assessment and grading decisively.

OP3.3.7 Develop study strategies and techniques that help compensate for their difficulties.

OP3.4 Students with mental disabilities

OP3.4.1 Provide a place in the first rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.4.2 Enhance tutoring with these students: they can help to know the specific needs of each one.
OP3.4.3 Try to respond to the student's didactic needs: provide teaching materials in advance, facilitate note-taking, or encourage classmates to borrow notes. In this work, it is essential to agree on these needs with the student himself.

OP3.4.4 Be flexible with attendance problems, delays or distractions in class (this may be side effects of drugs or consequences of a crisis).

OP3.4.5 Give sufficient notice of the delivery of assignments or exam dates, in case these coincide with periods of hospital or absenteeism.

OP3.4.6 In group work, allow individual work if there are problems with social relationships.

OP3.4.7 Motivate the student throughout the course.

OP3.5 Students with hearing dysfunction (ear, throat or related structures)

OP3.5.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.5.2 Provide photocopies of class explanations, facilitating note-taking, writing on the blackboard the fundamental aspects of the topics, using a classmate to contrast the information.

OP3.5.3 Encourage participation in class, asking frequently to get feedback on possible difficulties when listening to class explanations.

OP3.5.4 Facilitate access to lip reading, always trying to speak in front of the student.

OP3.5.5 In the correction and evaluation of tests: in all subjects, do not apply those criteria related to written expression such as the use of accents, adequate punctuation, correct agreement between the elements of the sentence, the adequacy of vocabulary, etc.

OP3.5.6 In evaluations, repeat the text several times.

OP3.5.7 Try to write a small script or outline of the development of the class on the board.

OP3.5.8 Communicate important matters by e-mail or in writing well in advance.

OP3.5.9 Do not use videos without subtitles.

OP3.6 Students with visual dysfunction

OP3.6.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.6.2 Ensure that visually impaired pupils make the most of their visual impairment. To do this, it will be necessary to provide them with optimal conditions that facilitate their learning, such as: brightness, contrast, location close to the blackboard, use of optical and non-optical aids such as lectern or flexo, etc.

OP3.6.3 Visually impaired pupils receive little information from their environment, so we must select for them as far as possible a repertoire of representative activities, standard activities.

OP3.6.4 Starting from the concrete and the particular to the global and general.

OP3.6.5 Do not speak with your back to the classroom when writing on the board. Try not to wander around the classroom while teaching. When speaking, use a normal tone of voice, speak slowly and try to vocalize correctly, but without exaggerating. Do not cover your mouth or have any object (pen, pencil) that makes it difficult to receive information.

OP3.6.6 Write a short script or outline of the development of the class on the board.

OP3.6.7 Communicate important matters by e-mail or in writing well in advance.

OP3.6.8 Do not use videos without subtitles.
OP3.6.9 In the event that students are unable to carry out the corresponding activity due to their visual dysfunction, it will be carried out with the help of a partner who will describe what they are visualizing and who will respond to each situation according to the indications given orally.

6. HANDLING LOADS WITH OVERHEAD CRANES AND HOISTS

6.1. COURSE DESCRIPTION

Concept: Course focused on training in load handling with overhead cranes and hoists in natural stone processing plants and the treatment and beneficiation of minerals and rocks.

Duration: 30 hours

6.2. COMPETENCIES AND LEARNING OUTCOMES

6.2.1. Professional achievements and achievement criteria

RP1: Interpret movement orders for materials and products for receipt, storage, transformation, dispatch or any other movement in the logistics flow.

CR1.1 The materials and products to be moved are identified, verifying that they coincide with what is specified in the written or verbal orders received.

CR1.2 Materials or products are checked to ensure that they meet the required quality, weight and measurement specifications, and any non-conformities are reported to the person in charge of the service.

CR1.3 The load to be moved is checked to ensure that it does not exceed the maximum capacity allowed by the overhead crane or hoist for each load point.

CR1.4 Loading tools or accessories are selected according to the type and characteristics of the material or product and its destination, following the established standards.

RP2: Carry out loading and unloading operations of materials and products for safe handling, using the tools and accessories appropriate to their characteristics and in accordance with the established procedures.

CR2.1 The different loading tools and accessories are used according to protocol, following the occupational risk prevention regulations.

CR2.2 The attachment points are determined according to the established protocols, according to the indications marked on the product or packaging itself, or the angle formed by the attachment of the sling.

CR2.3 The goods are positioned, in the previous loading operation, according to the characteristics of the goods themselves and/or their location at the destination.

CR2.4 The overhead crane or hoist is positioned vertically to lift the goods, avoiding dragging or inclined traction of the load.

CR2.5 The cargo is correctly deposited at the assigned destination, verifying its stability and carrying out the necessary operations for its securing in accordance with the established procedures, following safety and environmental protection regulations.

CR2.6 The tools are separated from the load and correctly placed where appropriate, following the established procedure and complying with safety regulations.

CR2.7 The operations of hanging and unhanging the load by hand on the overhead crane or hoist are carried out without losing direct or indirect control of the same.

RP3: Operate the overhead crane or hoist moving materials and products for reception, storage, transformation or dispatch, in accordance with the instructions received and established procedures and, where appropriate, under the supervision of a manager.

CR3.1 The goods are raised slightly, slowly lowered again in case their stability and fastening are not adequate.

CR3.2 The movement of the load is carried out in a uniform manner, avoiding swaying and at the lowest possible height.

CR3.3 The movement of the load is carried out taking into account the mass of the material and the speed of travel, especially at the beginning and end of manoeuvres.

CR3.4 Special attention is paid when loading/unloading from a vehicle or trailer, checking that the vehicle is shod and braked and that the driver is not in the cab of the vehicle.

CR3.5 The movement of products is carried out following the established routes and within the area reserved for this purpose.

CR3.6 The marked passage areas of overhead cranes and hoists are checked to ensure that they are free of objects and people, in order to avoid possible accidents.

CR3.7 The movement of loads is checked to ensure that it does not interfere with other load handling means(s) operating at the time.

CR3.8 The movement of loads is carried out in accordance with the requirements of the machine manual and in compliance with the established safety measures, and a suspended load is never left unattended.

CR3.9 In movement operations carried out at night or in insufficient visibility conditions, it is checked that the lighting systems are adequate for the tasks to be performed.

CR3.10 The operation is carried out with the assistance of an auxiliary operator, by means of an established system of signals, when part of the path of the load cannot be observed directly or with the aid of auxiliary devices.

CR3.11 Joint handling of goods by an overhead crane and another load-bearing element is carried out in accordance with the specific procedure established for this purpose and in the presence of a supervisor designated for this purpose.

CR3.12 Information on the movement of goods and products is collected in the corresponding reports or technical documentation and is transmitted accurately and at the established time, following the defined procedures, in order to collaborate in the control of the process.

RP4: Carry out first-level maintenance of the overhead crane and hoist to ensure their optimal operation, complying with the applicable occupational and environmental risk prevention provisions.

CR4.1 The condition of the main elements of the crane is visually checked before it is put into operation, informing the person responsible for the service of any anomaly found, and paralyzing the crane with appropriate signage when deemed necessary.

CR4.2 The perfect working condition of the brakes, emergency stop devices, limit switches, dead man's system, apparent condition of cables and chains, condition of the support and travel rails, controls and switches is checked at the beginning of the work.

CR4.3 Maintenance operations are carried out when the crane is idle, stopped and ensuring that it is disconnected and no one has access to the connecting devices.

CR4.4 Cleaning, greasing and level checking operations are carried out as often as provided in the maintenance plan, using the appropriate consumables and tools and following the manufacturer's instructions and the company's technical instructions.

CR4.5 Maintenance work that cannot be performed from the ground is performed on an appropriate and safe platform or other means of working at height.

CR4.6 Lifting tools and accessories are checked to ensure that they are in good condition and that their identification and specification are correct, and those that do not meet these conditions are removed.

CR4.7 Lifting tools and accessories are stored under the conditions established by the manufacturer to prevent deterioration.

CR4.8 Maintenance reports are correctly completed, noting the appropriate incidents and informing the service manager and/or the maintenance manager of any irregularities.

RP5: Adopt the safety measures established for the prevention of occupational risks and damage to materials and equipment.

CR5.1 The overhead crane or hoist is operated using the prescribed personal protective equipment at all times, checking the correct operation of the acoustic and optical signalling and in conditions of sufficient visibility.

CR5.2 The obligation not to transport people on the overhead crane or hoist is observed at all times.

CR5.3 Outdoor work is interrupted when weather conditions endanger the safety of workers and the integrity of equipment.

CR5.4 The hook is raised once the tasks to be performed have been completed or when working without load, to avoid collision with people and objects.

CR5.5 The signage in the operating areas is checked to ensure that it complies with the provisions of the regulations and that it is in perfect condition.

CR5.6 The handling of toxic and dangerous products is carried out in accordance with the specifications relating to the prevention of occupational and environmental risks in these cases.

CR5.7 The operation of overhead cranes in unique environments with specific risks is carried out in accordance with the occupational and environmental risk prevention regulations applicable to these cases.

6.2.2. Professional context

Means of production and/or creation of service

Overhead crane, gantry overhead crane, hoist, boom, monorail. Portable data transmission equipment. Barcode readers and others. Slings, hooks, shackles, suction cups, clamps, nets, tarpaulins, cables, chains, ropes, container ships or spreaders, pigeons or support beams. Containers and pallets. Protectors. Pulleys.

Work products or results

Unit loads handled, distributed, loaded, unloaded, moved, stored, stowed or stacked.

Information Used or Generated

Used: Regulations on the prevention of occupational risks related to the movement of loads, the use of work equipment, the use of personal protective equipment, signage and order and cleanliness in the workplace. The company's risk analysis and assessment document and, where applicable, the health and safety document. Manufacturer's instruction manuals. Company maintenance plan. General procedures and procedures for specific operations. Work orders. Coding of materials and products. UNE standards relating to cranes and lifting devices. Documentation issued by the National Institute for Occupational Safety and Hygiene or other public or private entities. Generated: Written and/or digital documents for the control of the movement and transport of materials and products. Maintenance parts. Incident reports.

6.3. CAPABILITIES AND ASSESSMENT CRITERIA

C1: Classify and describe the different types of overhead cranes and hoists, as well as loading tools and accessories, defining their components, characteristics and operation.

CE1.1 Identify the different types of overhead cranes and hoists and explain the fundamental applications and limitations of each of them.

CE1.2 Describe the main components of an overhead crane and hoist, defining their function and characteristics.

CE1.3 Identify and classify the different tools (slings, strobes, shackles, hooks or others) used in overhead cranes and hoists, explaining their main applications and limitations.

CE1.4 Recognize the different accessories (suction cups, clamps or others) used in overhead cranes and hoists, describing their operation, main applications and limitations.

CE1.5 Interpret the standard markings used on overhead cranes and hoists, as well as on their tools and accessories.

CE1.6 Describe the different control and command systems of overhead cranes, identifying each of the buttons, their function and the control indicators.

C2: Establish the basic conditions for handling the different types of materials and products for loading or unloading, depending on their characteristics, condition and quantities, in order to select the appropriate means and tools and the safety measures to be adopted.

CE2.1 Apply the different methods of measuring and calculating loads for their correct handling.

CE2.2 Explain the basic conditions of load stability, relating them to the systems and devices for securing and lifting, and to their centre of gravity.

CE2.3 List the different forms of packaging and packaging commonly used, as well as their fastening systems, relating them to loading tools and accessories.

CE2.4 Recognize the main standardized markings for toxic and hazardous materials and products.

CE2.5 Identify the cargo protection measures appropriate to the different types, shapes and characteristics of the products and operations to be carried out.

CE2.6 In a practical case of handling loads of different characteristics, shapes and weights:

- Calculate weight

- Calculate the center of gravity.

- Select the most appropriate means and tools and accessories.

- Apply the slings according to the nature and shape of the load and strength of the sling.

- Define the application of the chosen tool.

- Selecting the right protectors for the load

C3: Identify the regulations regarding the prevention of occupational risks related to the movement of loads with overhead cranes and hoists, relating the main risks and safety and preventive measures to be adopted.

CE3.1 Specify the risks derived from the manual handling of loads: falling objects, contusions, lifting postures, repetitive dorsolumbar overexertion, fractures, musculoskeletal injuries and others.

CE3.2 Specify the risks derived from the handling of overhead cranes and hoists, such as: entrapment, electrical contacts, falls, cuts, repetitive positional fatigue, torsions, vibrations and others.

CE3.3 Relate the different types of personal protective equipment appropriate to each risk.

CE3.4 Describe the measures to be taken in emergency situations.

CE3.5 Recognize the standardized signs that must delimit specific work areas, those reserved for pedestrians, vehicle crossings, and other signs located in handling areas.

CE3.6 Recognize the light and acoustic signals that overhead cranes and hoists must have.

CE3.7 In a perfectly defined simulated case of loading, displacement and unloading:

- Identify the most appropriate personal protective equipment.

- Name the risks arising from cargo handling.

- Name the risks arising from a discharge in an unstable position.

- List possible emergency situations that may arise.

- Mention the mandatory signs to be located in the specific work areas.

C4: Handle loads and operate overhead cranes and hoists, carrying out conventional operations of loading, moving and unloading materials or products, taking into account occupational risk prevention measures and work environment signage.

CE4.1 Identify and interpret the documentation or instructions that must accompany goods to be loaded, unloaded or transferred in their logistics flow.

CE4.2 Carry out operations to move different materials and products with overhead cranes and hoists in vacuum and under different load conditions:

- Small and large weights and volumes.

- Large and small spaces

- Short and medium distances

CE4.3 Carry out loading and unloading operations with different types of goods and products and for different purposes: machine feeding, storage, distribution, stacking, stowage and others, accessing the loads located on the pavement, racking or vehicle.

CE4.4 Identify risk situations due to load balancing, turning or combined, as well as the measures to be adopted in these cases.

CE4.5 Perform operations at the beginning and end of work with overhead cranes and hoists.

CE4.6 Verify the operation of the safety systems of overhead cranes and hoists, especially the emergency stop, dead man's device, brakes and limit switches.

CE4.7 Complete work reports where the movement of goods and products is recorded.

C5: Apply first-level maintenance operations for overhead cranes and hoists, complying with occupational and environmental risk prevention provisions.

CE5.1 Interpret in the instructions of the maintenance manual the operations that correspond to a primary level of the same.

CE5.2 Visually verify the condition of the different components of the overhead crane or hoist, checking whether they meet the minimum requirements established for their use.

CE5.3 Identify those anomalies that affect the loading, unloading or safe handling of materials and products, which must be reported to the person in charge of the service, for immediate repair and/or that may cause the crane to stop.

CE5.4 Check the condition of different loading tools and accessories, recognising whether they meet the minimum characteristics required for their use in the different cases.

CE5.5 Apply the established procedures for cleaning, greasing and checking levels, ensuring that the crane is disconnected and no one has access to the connection devices.

CE5.6 Apply the established procedures for the storage of lifting tools and accessories, following the manufacturer's use and maintenance manual.

CE5.7 Complete different maintenance reports corresponding to the basic operations carried out with overhead cranes and hoists following the defined models.

6.4. CONTENTS

1. Overhead cranes and hoists: types and characteristics

- Logistics flow of cargo and services. Technical documentation. Unit load.

- Regulations on the prevention of occupational risks related to the movement of loads.

- UNE standards relating to cranes and lifting devices.

- Documentation issued by the National Institute for Occupational Safety and Hygiene

- Overhead cranes and hoists. Classification and types. Main technical features. Applications. Capabilities and limitations. Different types of control and command systems: push-button system, remote control and auxiliary computer. Operator's location: in the cab above the overhead crane or at the foot of the equipment.

- Main components of overhead cranes and hoists. Electric motor. Lifting system. Scrolling system. Knobs and controls.

2. Operation of overhead cranes and hoists

- Start-up and shutdown. End of the day. Operation of the keypad and movement control. Loading, lifting, moving and unloading procedures with materials and products of different characteristics.

- First-class maintenance of overhead cranes and hoists, their tools and accessories

- Tools: Slings, strobes, shackles, hooks and others. Applications and limitations.

- Accessories: suction cups, tweezers and others. Applications and limitations.

- Containers and packaging: Containers, drums and others. Fastening systems. Load protectors.

- Types of cargo. Weights and volumes. Calculation of the estimated weight of the cargo in packaging.

- Load stability. Center of gravity of the load: elementary concept and simple methods for its determination.

- Dynamic and static behaviour of the loaded and unloaded overhead crane: overload, misplaced loading, speeding, acceleration, braking, incorrect manoeuvres. Risk Consequences: Balancing.

- Main risks in the movement of loads. Main prevention measures. Personal protective equipment. Machine safety devices.

- Standard symbols and signs on cranes and hoists and in the work area.

- Safety in handling: procedures for loading, unloading and moving the load.

- Visibility of movements. Suitable weather conditions.

- Order and cleanliness in the workplace.

- Actions to be taken in emergency situations.

- Regulations on the handling of toxic and dangerous goods.

- Precautions in environments with special risks: chemical industry, energy industries, explosives factories, and others.

6.5. METHODOLOGICAL GUIDELINES

Teaching methodology			
Activity	**Teaching techniques**	**Student work**	**Hours**
Theoretical classes	Lectures on theoretical content. Resolution of doubts raised by students. Virtual Reality content.	Face-to-face:	15
		Non face-to-face:	0
Practical lessons	Work placement in a factory or an enabled special classroom.	Face-to-face:	10
		Non face-to-face:	0
Mentoring	Resolution of doubts about theory, problems and practices.	Face-to-face:	0
		Non face-to-face:	2
Official examinations	Preparation, correction and revision of written tests.	Face-to-face:	3
		Non face-to-face:	0
			30

Activities and evaluation criteria		
Activitiess	**Evaluation systems and criteria**	**Percentage weight (%)**
Written examinations.	Theoretical and practical knowledge acquired by the student will be evaluated.	50

Practical lessons	The knowledge acquired in the internship will be evaluated.	50

Control and monitoring mechanisms
The control and monitoring of student learning will be carried out through the following actions: - Participation in the topics and practical cases raised in class. - Attendance at theory and practical classes. - Tutorials. - Completion of self-assessment questionnaires. - Assessment of the individual written test, or individual and group research work.

6.6. REASONABLE ACCOMMODATION

A1 Reduce or limit the weights to be loaded and unloaded, and/or processes to be carried out manually. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, cardiovascular system, digestive system, genitourinary system, neoplasms).

A2 Automate machinery and processes as much as possible. (Especially recommended for musculoskeletal-related disabilities.)

A3 Add assistive devices, such as special grips or lower-resistance levers, to reduce strain and make handling easier. (Especially recommended for musculoskeletal-related disabilities.)

A4 Use ergonomics in crane controls, locating and designing steering controls so that they are accessible and easy to use even with a single upper limb; with large, easy-to-access buttons, technological systems such as remote control devices or automation systems, obstacle detection sensors, proximity alarms and automatic braking systems (especially recommended for disabilities related to the musculoskeletal nervous system).

A5 Reduction of distances in prolonged standing. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A6 Facilitate accessibility in the work environment, eliminating obstacles, architectural barriers, and/or possible unevenness. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A7 Schedule breaks and/or make work schedules more flexible. Schedule breaks from time to time to facilitate postural change and avoid forced and repetitive positions for a long time. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, respiratory system, cardiovascular system, hematopoietic system, digestive system, genitourinary system, endocrine system, neoplasms, mental illness).

A8 Include the location and design of directional controls so that they are accessible and easy to operate. Install ergonomic controllers on the crane, such as levers or joysticks that are easy to operate and access, with intuitive, touch-sensitive controls. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A9 Installation of actuation mechanisms at a height suitable for the use of persons in wheelchairs and/or short stature. (Especially recommended for disabilities related to the musculoskeletal system, nervous system).

A10 Inclusion of more accessible and/or automated interfaces to facilitate crane operation. Touch screens with clear, easy-to-understand icons, audible and visual cues to indicate crane status, facilitate spatial orientation and load tracking. (Especially recommended for disabilities related to the nervous system, visual apparatus, hearing, mental retardation)

A11 Use of PPE (FPP2 mask, splash screens, goggles, gloves,...) that prevent contact and respiration of particles (dust, smoke, combustion, etc.). (Especially recommended for disabilities related to the respiratory system, digestive system, neoplasms, throat and related structures, skin and appendages).

A12 Improvement of air quality and control in the work environment with adequate exhaust, filtration, and/or ventilation systems. (Especially recommended for respiratory disabilities.)

A13 Maintenance and cleaning of workplaces, machinery and tools, using wet methods or vacuum cleaners instead of others that encourage the movement of airborne particles. (Especially recommended for disabilities related to the respiratory system, skin and adnexa); Keep work areas clean, organized, and free of obstacles. (Especially recommended for disabilities related to the musculoskeletal system, nervous system, hematopoietic system, visual apparatus).

A14 Avoid regular exposure to noise and/or vibrations through the use of appropriate PPE. (Especially recommended for disabilities related to the cardiovascular system, ear, throat and related structures, language); Reduce noise and other visual stimuli that

impede the worker's concentration (Especially recommended for disabilities related to mental illness).

A15 Avoid situations of exposure to intense or prolonged stress by limiting the burden of responsibilities, favouring the alternation of tasks and regulated breaks. (Especially recommended for disabilities related to the cardiovascular system, digestive system, mental illness).

A16 Control temperature and humidity to avoid high and low temperature environments. (Especially recommended for disabilities related to the cardiovascular system, hematopoietic system, neoplasms, digestive system, mental illness).

A17 Avoid tasks with a risk of cuts or major trauma (Especially recommended for disabilities related to the hematopoietic system).

A18 Avoid rotating and/or night shift work, favoring more regular and predictable work for the worker, which implies stability in their meal schedules. Respect the worker's feeding times and needs (Especially recommended for disabilities related to the digestive system).

A19 Have toilets close to the workplace. (Especially recommended for disabilities related to the digestive system, genitourinary system, neoplasms).

A20 Keep hazardous chemicals or materials well stored, maximizing direct and continuous exposure to them. (Especially recommended for skin-related disabilities and adnexa.)

A21 Limit prolonged exposure to intense light; Adjust and/or improve the lighting of the work environment (Especially recommended for visually impaired disabilities).

A22 Place visual cues in large fonts and braille. (Especially recommended for visually impaired disabilities.)

A23 Add acoustic signals. (Especially recommended for visually impaired disabilities.)

A24 Use of written communication systems and devices (blackboards, signs,...), visual communication (graphics, pictograms, signs, etc.), sound and/or assisted communication that indicate operational and safety procedures. (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation.)

A25 Have the support of a partner and/or superior in communication and/or have employment with the support of professionals from social organizations that support people with intellectual, sensory or mental disabilities (Especially recommended for disabilities related to hearing, throat and related structures, language, mental retardation).

A26 Use teaching and training methods in the operation of machinery supported by visual and practical resources that facilitate comprehension and learning. (Especially recommended for disabilities related to mental retardation.)

A27 Provide structured, clear, and simple work instructions. Establish routines. (Especially recommended for disabilities related to mental retardation and mental illness.)

A28 Provide simplified controls, checklists, paths and signage. (Especially recommended for disabilities related to mental retardation.)

A29 Continuous feedback and positive reinforcement. (Especially recommended for disabilities related to mental illness.)

6.7. PEDAGOGICAL GUIDELINES

Below, a series of general pedagogical guidelines and adaptations are offered depending on the student body in order to achieve the greatest effectiveness in teaching and a greater degree of academic and learning satisfaction for students, always adapting to the corresponding disability:

OP1. In time, methodology and activity:

OP1.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP1.2 Supervise the student's independent work: monitoring of work, exam dates, activities inside or outside the school.

OP1.3 Have a reference person with whom you can talk and communicate more openly and closely, to whom you can transmit and communicate, above all, your fears and difficulties in general.

OP1.4 Give individual, brief, concrete instructions and offer additional explanations; Try to simplify more abstract concepts, ensuring that you have understood the instructions.

OP1.5 Provide alternative answers that help generate successful responses and promote their strengths in the group, asking questions in which they can feel competent, avoiding error or exposure to situations where they may feel forced or ridiculous, trying to make corrections in private.

OP1.6 Design organisational and methodological strategies for personalised attention to students: multilevel teaching, project-based learning (research, work, problem-based, service-learning, etc.).

OP1.7 Give the student time to organize, carry out and review his/her tasks.

OP1.8 Influence the specific guidelines for the presentation of papers and activities (objective, format, date).

OP1.9 Adapt the typography of the texts used in class to facilitate reading accuracy and speed and thus comprehension.

OP1.10 Use alternative formats to written text for the presentation of work or tasks (computer, audio, etc.).

OP1.11 Allow the use of a written script in oral presentations.

OP1.12 Use lined paper to improve the organization of graphic space

OP2 On assessment techniques and instruments:

OP2.1 Ensure that students have understood the instructions well.

OP2.2 Provide supervision and self-instructions to help students organize their time when taking assessment tests.

OP2.3 Estimate and grant extra time to carry out the assessment tests, taking into account the specific needs of each student and the area.

OP2.4 Adapt the format of the assessment tests to make them easier to read: Arial font type, at 12 pt. With 1.5 line spacing and at least 1.5 inter-spacing.

OP2.5 Facilitate access to information on assessment tests with the reading of the test by teachers.

OP2.6 Ensure that the student has reviewed the exam and has not left questions unanswered by mistake.

OP2.7 Promote the widespread use of varied, diverse, flexible assessment instruments adapted to different learning situations, ensuring that the conditions for carrying out the processes associated with assessment are adapted to the needs of students with specific educational support needs.

OP3 Other measures to address diversity/ Methodological guidelines:

OP3.1 Students with musculoskeletal disabilities-related disabilities and students with nervous-system-related disabilities.

OP3.1.1 Establish an active methodology that favours contact with their environment and motivates them in their acquisitions.

OP3.1.2 Surround him with plenty of manipulative and social stimulation.

OP3.1.3 Make the most of their driving resources.

OP3.1.4 Use of adapted materials, use of computer.

OP3.1.5 Assess progress against baseline knowledge.

OP3.1.6 Evaluate content rather than form.

OP3.1.7 Assess effort or interest.

OP3.1.8 Assess, together with the affected students, the different possibilities that exist to carry out the corresponding activity in the best conditions, according to the degree of disability they present.

OP3.2 Students with disabilities due to deficiencies of the digestive system and genitourinary system.

OP3.2.1 Allow students to use the service whenever they need to.

OP3.3 Students with intellectual disabilities and students with disabilities related to Language Disorders:

OP3.3.1 Provide a place in the front rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.3.2 Provide a regulated, organized and safe physical environment.

OP3.3.3 Ensure friendly and accessible environments (structure, noise level, signage, etc.).

OP3.3.4 Use visual aids in explanations: digital whiteboard, diagrams with the most relevant content including photos/images, etc.

OP3.3.5 Be close to the student when addressing him/her, avoiding possible distractions.

OP3.3.6 If the student has specific reading and/or writing difficulties (dysgraphia, dysorthography), spelling mistakes should not influence the assessment and grading decisively.

OP3.3.7 Develop study strategies and techniques that help compensate for their difficulties.

OP3.4 Students with mental disabilities.

OP3.4.1 Provide a place in the first rows of the classroom: this way you can follow the student closely and guide them if they get lost in the monitoring of academic activities.

OP3.4.2 Enhance tutoring with these students: they can help to know the specific needs of each one.
OP3.4.3 Try to respond to the student's didactic needs: provide teaching materials in advance, facilitate note-taking, or encourage classmates to borrow notes. In this work, it is essential to agree on these needs with the student himself.

OP3.4.4 Be flexible with attendance problems, delays or distractions in class (this may be side effects of drugs or consequences of a crisis).

OP3.4.5 Give sufficient notice of the delivery of assignments or exam dates, in case these coincide with periods of hospital or absenteeism.

OP3.4.6 In group work, allow individual work if there are problems with social relationships.

OP3.4.7 Motivate the student throughout the course.

OP3.5 Students with auditory dysfunction (ear, throat or related structures).

OP3.5.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.5.2 Provide photocopies of class explanations, facilitating note-taking, writing on the blackboard the fundamental aspects of the topics, using a classmate to contrast the information.

OP3.5.3 Encourage participation in class, asking frequently to get feedback on possible difficulties when listening to class explanations.

OP3.5.4 Facilitate access to lip reading, always trying to speak in front of the student.

OP3.5.5 In the correction and evaluation of tests: in all subjects, do not apply those criteria related to written expression such as the use of accents, adequate punctuation, correct agreement between the elements of the sentence, the adequacy of vocabulary, etc.

OP3.5.6 In evaluations, repeat the text several times.

OP3.5.7 Try to write a small script or outline of the development of the class on the board.

OP3.5.8 Communicate important matters by e-mail or in writing well in advance.

OP3.5.9 Do not use videos without subtitles.

OP3.6 Students with visual dysfunction.

OP3.6.1 Place the student close to the teacher, with good visibility of the blackboard and with classmates who favor their teaching-learning process and the improvement of their social interactions.

OP3.6.2 Ensure that visually impaired pupils make the most of their visual impairment. To do this, it will be necessary to provide them with optimal conditions that facilitate their learning, such as: brightness, contrast, location close to the blackboard, use of optical and non-optical aids such as lectern or flexo, etc.

OP3.6.3 Visually impaired pupils receive little information from their environment, so we must select for them as far as possible a repertoire of representative activities, standard activities.

OP3.6.4 Starting from the concrete and the particular to the global and general.

OP3.6.5 Do not speak with your back to the classroom when writing on the board. Try not to wander around the classroom while teaching. When speaking, use a normal tone of voice, speak slowly and try to vocalize correctly, but without exaggerating. Do not cover your mouth or have any object (pen, pencil) that makes it difficult to receive information.

OP3.6.6 Write a short script or outline of the development of the class on the board.

OP3.6.7 Communicate important matters by e-mail or in writing well in advance.

OP3.6.8 Do not use videos without subtitles.
OP3.6.9 In the event that students are unable to carry out the corresponding activity due to their visual dysfunction, it will be carried out with the help of a partner who will describe what they are visualizing and who will respond to each situation according to the indications given orally.

7. TRAINERS

7.1. MINIMUM EXPERIENCE CRITERIA FOR TRAINERS

According to the normative criteria of the country where the course is taught.

7.2. TEACHING STAFF DATA

Responsible Teacher	*
Department	*
Knowledge area	*
Location of the teacher's office	*
Telephone	*
Email	*
URL / WEB	*
Hours of Operation/Tutoring	*
Placement during tutoring	*
Faculty and Researcher Profile	*

(*) All fields marked with an asterisk are subject to completion with the specific information for each school.

8. MINIMUM REQUIREMENTS FOR SPACES, FACILITIES AND EQUIPMENT

Training Space	Minimum surface area m215 students	Minimum surface area m225 students
Management classroom.	45	60
Natural stone processing workshop (or in factory company).	100	100
Practice area for forklifts (or in factory company).	100	100
Practice area for overhead cranes (or in factory company).	100	100

It should not be interpreted that the various training spaces identified must necessarily be differentiated by enclosures.

The facilities and equipment must comply with the corresponding industrial and hygienic health regulations and will respond to universal accessibility and safety measures for the participants.

The number of units that must be equipped with the utensils, machines and tools specified in the equipment of the training spaces will be sufficient for a minimum of 15 students and must be increased, where appropriate, to serve a higher number.

In the event that the training is aimed at people with disabilities, reasonable adaptations and adjustments will be made to ensure their participation under conditions of equality, taking into account all the recommendations recommended in this curriculum.

9. REFERENCES

Bibliography

Alonso Crespo, R.; Ordoñez Puime, A. (2014). “Labrado y conformado de la pizarra. IEXD0108”. ic editorial.

Asesoramiento, Tecnología e Investigación, S. L. (2014). “Guía para el docente y solucionarios. IEXD0108. Elaboración de la Piedra Natural”. ic editorial.

Asesoramiento, Tecnología E Investigación, S. L.; Alonso Crespo, R.; Ordoñez Puime, A. (2013). “Labrado y conformado de la pizarra UF0485”. ic editorial.

Asesoramiento, Tecnología e Investigación, S. L.; Ordoñez Puime, A. (2013). “Recepción y almacenamiento del bloque de piedra natural UF0477”. ic editorial.

Asesoramiento, Tecnología e Investigación, S. L.; Ordoñez Puime, A. (2013). “Replanteo y clasificación de los productos finales de piedra natural UF0483”. ic editorial.

Asesoramiento, Tecnología e Investigación, S. L.; Ordoñez Puime, A.; Alonso Crespo, R. (2013). “Abujardado, flameado y otros tratamientos físicos superficiales de la piedra natural UF0481”. ic editorial.

Asesoramiento, Tecnología e Investigación, S. L.; Ordóñez Puime, A. (2013). “Apomazado y pulido de piedra natural UF0480”. ic editorial.

Asesoramiento, Tecnología E Investigación, S. L.; Ordoñez, A.; Ingrid, J. (2013). “Elaboración de productos finales de piedra natural: técnicas y procesos operativos UF0484”. ic editorial.

Asesoramiento, Tecnología E Investigación, S. L.; Ordoñez Puime, A.; Alonso Crespo, R. (2013). “Procesos y tratamientos químicos y clasificación de los productos de piedra natural UF0482”. ic editorial.

García Segura, V. (2020). “Manipulación de cargas con carretillas elevadoras MF0432_1”. ic editorial.

García Segura, V. (2021). “Manipulación de cargas con carretillas elevadoras IEXD0108”. ic editorial.

González Bautista, A. J. (2012). “Manipulación de cargas con puentes-grúa y polipastos MF0637_1”. ic editorial.

González Bautista, A. J. (2013). “Manipulación de cargas con puentes-grúa y polipastos. IEXD0108”. ic editorial.

López Béjar, E. (2012). “Manejo de maquinaria de corte de bloques de piedra UF0478”. ic editorial.

López Béjar, E. (2014). “Manejo de maquinaria de corte de bloques de piedra. IEXD0108”. ic editorial.

Ordoñez Puime, A.; Asesoramiento, Tecnología e Investigación S.L. (2014). “Abujardado, flameado y otros tratamientos físicos superficiales de la piedra natural. IEXD0108”. ic editorial.

Ordoñez Puime, A.; Asesoramiento, Tecnología e Investigación S.L. (2014). “Apomazado y pulido de piedra natural. IEXD0108”. ic editorial.

Ordoñez Puime, A.; Asesoramiento, Tecnología e Investigación S.L. (2014). “Control de calidad del producto semielaborado. IEXD0108”. ic editorial.

Ordoñez Puime, A.; Asesoramiento, Tecnología e Investigación S.L. (2014). “Recepción y almacenamiento del bloque de piedra natural. IEXD0108”. ic editorial.

Ordoñez Puime, A.; Asesoramiento, Tecnología e Investigación S.L. (2014). “Replanteo y clasificación de los productos finales en piedra natural. IEXD0108”. ic editorial.

Ordoñez Puime, A.; Asesoramiento, Tecnología e Investigación, S. L., Ingrid Piñeiro Di Blasi, J.; Alonso Crespo, R. (2013). “Control de calidad del producto semielaborado. UF0479”. ic editorial.

Ordoñez Puime, A.; Asesoramiento, Tecnología e Investigación S.L. (2014). “Elaboración de productos finales de piedra natural: técnicas y procesos operativos. IEXD0108”. ic editorial.

Ordoñez Puime, A.; Asesoramiento, Tecnología e Investigación S.L. (2014). “Procesos y tratamientos químicos y clasificación de los productos de piedra natural. IEXD0108”. ic editorial.

Regulations

INSHT (2003). "Technical Guide for the Assessment of Risks Related to the Manual Handling of Loads". Royal Decree 487/1997 of 14 April. B.O.E. nº 97, of 23 April.

ITC 02.0.02. "Protection of Workers from Inhalation Risk of Respirable Dust and Crystalline Silica." Order TED/723/2021, of 1 July (BOE no. 163 of 9 July 2021).

ITC 02.1.01. "Safety and Health Document". Order TED/252/2020, of 6 March (BOE no. 73 of 18 March 2020).

ITC 02.1.02. "Preventive training for the performance of the job". Order ITC/2699/2011, of 4 October (BOE no. 245, of 11 October 2011).

ITC 02.2.01. "Commissioning, maintenance, repair and inspection of work equipment". Order ITC/2060/2010, of 21 July (BOE no. 183, of 29 July 2010).

ITC 12.0.01 and ITC 12.0.02. "Conformity assessment of products for use in mining and mandatory technical standards". Order ITC/2107/2009, of 28 July (BOE no. 186, of 3 August 2009).

UNE-EN 12440:2008. "Test Methods for Natural Stone. Denomination of natural stone."

UNE-EN 12670:2003. "Natural stone. Terminology."