



Description of learning activity

IDENTIFICATION	Title of learning activity	
	Hemp Application in Eco-Friendly Building	
	The Learning activity takes place in: Formedit-Bari	
	Course/subject: VET in Energy Efficiency and Thermal Energy/Energy Certification of Buildings	
	Topic	Duration (hours):
	Thermal/Acoustic insulation	12

CONTENTS	Description of students:	EQF
	The target students are enrolled in the third course of the Higher Education VET Course in Energy Efficiency and Solar Thermal Energy .	3
	Learning goals:	
	Train participants in the different uses of hemp in construction / learn about the different construction systems and techniques that use hemp	
SDG's	Content:	
	1. Natural materials 2. Hemp 3. Illustration of materials, necessary tools, construction techniques and installation methods, safety 4. Illustration of achievement, good practices 5. FINISHING AND MAINTENANCE 6. Installation of insulation in hemp fiber panels 7. Creation of hemp and lime products, according to the different applicable uses: infill wall, insulation for attics, roofing, insulating and finishing plasters.	
	SDG's :	
	4.7 Quality Education 5. Gender Equality 7. Cheap, reliable, sustainable and modern energy 12.1 Responsible consumption and production	
SDG's	How are SDG's visible and implemented in learning activity?	
	4.7 Quality Education By 2030, ensure that all students acquire the knowledge and skills needed to promote sustainable development through education for sustainable development and sustainable lifestyles Gender Equality This activity has no trouble being made for either male or female students. 7. Cheap, reliable, sustainable and modern energy - One of the properties of hemp is bioremediation, the ability to absorb heavy metals in the soil . - Hemp regenerates in a year, it does not require particular quantities of water and herbicides or pesticides. The hemp plant removes CO2 from the atmosphere, thanks to its ability to absorb significant quantities during the plant's growth phase. - The hemp brick or hemp block is able to strongly isolate the internal environment from the external one thanks to the large coefficient of thermal conductivity. 12.1 By 2030, achieve the sustainable management and efficient use of natural resources. It is possible to build or renovate using natural materials such as HEMP, reducing the energy impact obtaining a low-consumption house, and healthy for those who live there. Hemp is an extremely ductile, natural material that offers excellent performance for thermal and acoustic insulation. A single centimeter of hemp fiber insulates as much as 25 centimeters of traditional plaster.	5

FORM	Principles	
	Energy Efficiency.	
	Methods:	
	Soundproofing and thermal insulation power Characteristics of hemp brick Criteria for thermal and acoustic insulation of the envelope. Installation of hemp brick for the thermal and acoustic insulation of buildings.. Test interpretation.	
	Teacher's role:	
	The teacher will introduce the activity, will give the main guidelines and support students who need assistance throughout the process. The teacher will demonstrate how to install the hemp brick	
	Student's role:	
	The students will follow the instructions provided and will be able to independently apply the hemp brick and the various support materials	
	Organising:	
	The students will be organized into five member groups and through the practical module they will install the the hemp brick , hemp lime, hemp plaster, hemp sound-absorbing panels	
	Learning environment:	
	The training activities begin with a theoretical introduction supported by audiovisual material through which the properties of lime and hemp are illustrated, the most used finishing methods with natural materials. The students, in groups of 5, will proceed to the 8-hour practical module and evaluate the sustainability characteristics of the materials	
	Feedback and evaluation:	
	Once the work has been completed, the students will write a report where they will indicate, based on the materials used, the impact on sustainability and energy efficiency. They will also illustrate the innovation of hemp compared to traditional materials	

