

Curriculum for Module 3

Training of Up-to-date Competences for Teachers in Multifunctional Agriculture

MODULE 3: Up-to-date teacher

Duration: 8 hours up to 45 minutes (6 hours face to face training, 2 hours self-preparation)

OVERVIEW

When we speak of multifunctional agriculture, we change the concept of production, in which resources are not only dedicated to a single/simple production, but new products appear that must be produced with the best quality, seeking the long term and the improvement of results. For all this, the teachers who train the future multifunctional agricultural workers must have a set of skills that enable an entrepreneurial culture and a diversification of the offer of their farms/enterprises. For this purpose, teachers must be trained in certain areas that subsequently affect the actors of multifunctional agriculture. Training in the field of agritourism has been considered necessary and should be a fundamental pillar based on the intrinsic values of each production area; on the other hand, there is agribusiness, as businesses must generate added value and wealth in rural areas. Rural development is currently inconceivable without the involvement of renewable energies, as it is precisely in rural areas that energy dependency and the reduction of greenhouse gases can be tackled through sustainable energy production. Training in the field of digitalization is also considered necessary in order to optimise resources and improve the efficiency of resources, especially those that are scarce, such as in certain areas where water is scarce. In addition to the above, since these are more complex production processes, resource planning must be carried out to allow optimal development of multifunctional agriculture. Finally, a work unit will be developed that deals with the revitalization of rural areas and the active improvement of their population.

LEARNING OBJECTIVES

Knowledge:

The learner will be able to:

Deepen the knowledge and development of multifunctional agriculture, learn new productive approaches that improve the quality of life in the rural environment, using an approach that is not simply focused on productivity but also diversification and rural development.

Skills:

The learner will be able to:

Develop activities in multifunctional agriculture and transmit that knowledge to potential actors in it.

Attitudes acquired:

The learner will be able to:

Assertively develop an attitude towards multifunctional agriculture, avoid productivism approaches and promote sustainable development.

Learning Units

Unit 1: Agritourism and food tourism

Unit 2: Economy and AM

Unit 3: Digitalization in the agroforestry and livestock sector

Unit 4: Renewable energies in the rural environment

Unit 5: Compatibility of activities in MA

Unit 6: Social demands and activities in MA

Unit 1: Agritourism and Food Tourism

Outcomes:

KNOWLEDGE	SKILLS	ATTITUDES
<p>Student is able to:</p> <p>Recognise the basic concepts of agritourism and gastro tourism within the framework of responsible and sustainable tourism.</p> <p>Identify the benefits of agritourism and gastro tourism.</p>	<p>Student is able to:</p> <p>Demonstrate the options of agritourism and gastro tourism as a development alternative in rural areas.</p> <p>Design a business model in accordance with the specifications on responsible and sustainable tourism, specifically related to agritourism and gastro tourism.</p>	<p>Students is able to:</p> <p>Value new development opportunities offered in rural areas thanks to the implementation of multifunctional agriculture.</p>
<p>Transversal skills:</p> <ul style="list-style-type: none"> • Teamwork: Ability to work effectively with others, maintain fluid communication and contribute to the accomplishment of common objectives. • Time management: Ability to plan tasks by establishing realistic deadlines; identifying the most important and urgent tasks, and prioritising accordingly. • Creativity: Ability to analyse situations from different perspectives and provide new, original and innovative solutions. 		
<p>Digital skills:</p> <ul style="list-style-type: none"> • Information management in digital media: Ability to search, evaluate, organise, and use digital information effectively. • Creation of content in digital and audiovisual media: Ability to produce and edit digital and multimedia content. 		
<p>Green skills:</p> <ul style="list-style-type: none"> • Operation management skills: Ability related to change in organisational structure required to support green activities and an integrated view of the firm through life-cycle management, lean production and cooperation with external actors, including customers. 		

Implementation Plan of Pedagogical Activities:

Date:	Location:	Duration: 1h 20 min		
Description of participants: Agrarian teachers and trainers				
Expected number of learners: 25				
No. of Activity	Timing	Training Methods / Activity	What I do	What they (participants) do
A 1.1	5 min	Ice breaking.	Identify the basic concepts of responsible tourism, mainly agritourism and gastro tourism	Complete the checklist (Annex 1), to know if you are a responsible tourist.
A 1.2	10 min	Presentation and discussion.	Introduce the basic concepts of responsible tourism, its benefits and the different types according to WTO, with special emphasis on agritourism and gastro tourism.	Identify the main ideas about the information presented.
A 1.3	15 min	Study of cases. Work in groups.	Support and dynamize.	Search, study and analyse successful models of agritourism and gastro tourism companies in your country.
A 1.4	40 min	Design, development and planning of a business model related to agritourism and/or gastro tourism. Work in groups.	Support and dynamize.	Design, develop and plan a business model related to agritourism and/or gastro tourism, taking into account the different roles (farmers, tourists, tour operators and local authorities).
A 1.5	10 min	Recording a short video. Work in groups.	Supervise recording.	Record a brief promotional video of your business proposal (activity about the benefits of 1.4.).
Materials: <ul style="list-style-type: none"> ● Case study handouts. ● Didactic handouts. ● Check list. ● Laptop and screen, mobile phone, software applications. 				

References/Sources:

Ref 1: *European Agricultural Fund for Rural Development - European Commission*. (n.d.). Single-Market-Economy.ec.europa.eu. https://single-market-economy.ec.europa.eu/sectors/tourism/eu-funding-and-businesses/funding-guide/european-agricultural-fund-rural-development_en

Ref 2: Šajn, N., & Finer, K. (2023). *Rural tourism*. European Parliamentary Research Service.

Ref 3: Turismo, del. (2018, June 25). *La Organización Mundial del Turismo (OMT)*. YouTube. <https://youtu.be/cO2W-zjyVRQ>

Ref 4: UNWTO. (2023). *Home | UNWTO*. Unwto.org. <https://www.unwto.org/>

Unit 2: Economy and MA

Outcomes:

KNOWLEDGE	SKILLS	ATTITUDES
<p>Student is able to:</p> <p>Understand financial balance: analyse and comprehend the financial state of a company or farm, including income, expenses, assets, and liabilities.</p> <p>Explore investment strategies: evaluate different investment options and develop strategies to maximise return on investment within the context of a company or farm, with environmental aspects.</p> <p>Analyse cost management: study and optimise operating costs of a company or farm, identifying areas for improvement and seeking ways to reduce inputs and expenses without compromising quality or efficiency and thus achieve a higher green result.</p>	<p>Student is able to:</p> <p>Demonstrate cost-effective strategies for financial viability in multifunctional farms, including environmental variables, obtaining an integrative result.</p> <p>Collect and analyse data to measure economic performance and optimise resources.</p> <p>Chart the economic impacts of diversification strategies to enhance farm profitability.</p>	<p>Students is able to:</p> <p>Evaluate the economic viability of adopting multifunctional agricultural practices on a farm.</p> <p>Formulate a business model that integrates diversified income streams in agricultural enterprises.</p> <p>Justify the economic benefits of sustainable agriculture practices in enhancing farm profitability.</p>

Digital skills:

- Group chart about discussion subjects to initialise each session.
- Instant messaging between colleagues for fluid communication.
- Using tablets for working on a project, exploring and explaining reflective digital storytelling, even keeping diary reflections.

- After reflecting about their learning demands, design a webinar, build an online community or a repository. Group discussion forum describing managing content of students' data, edit privacy settings, implement a joint or full project where one students group interact with students from different contexts, using an online learning management system,

Green skills:

- Cognitive economical green competences, such as personal and group environment awareness and the willingness to learn about sustainable development systems, in addition to driving skills to assess, interpret and understand both the need for change and the measures required.
- Innovation skills to identify opportunities and create new strategies to respond to green challenges.
- Interpersonal competences for coordination, management and business skills to facilitate holistic and interdisciplinary approaches that encompass economic, social and ecological objectives, communication and negotiation skills for discussion of conflicting interests in complex contexts, marketing skills to promote greener products and services)
- Intrapersonal competences (adaptability and transferable skills that help workers learn and apply new technologies and processes required to green their jobs, entrepreneurial skills to capture opportunities presented by low-carbon technologies)
- Management of control systems (waste, energy, water).
- Impact assessment and quantification, and monitoring (waste, energy, water).
- Impact and use minimisation.
- Risk management.
- Material use and impact quantification.

References/Sources:

Ref 5: *Generic Green Skills*. (n.d.). Greenskillsresources.com.
<https://greenskillsresources.com/category/generic-green-skills>

Implementation Plan of Pedagogical Activities:

Date:	Location:	Duration: 60 min		
Description of participants: Agrarian teachers and trainers				
Expected number of learners: 25				
No. of Activity	Timing	Training Methods / Activity	What I do	What they (participants) do
A 2.1	15	Presentation and discussion	<p>Distinguish traditional and multifunctional agriculture, and its economic implications.</p> <p>Explain farming production concepts and their relationships with basic economic concepts, like balance sheets, profit and loss accounts, cash flow, and depreciation.</p> <p>Present examples and case studies illustrating each concept.</p>	<p>Listen attentively and take notes.</p> <p>Discuss examples provided.</p> <p>Ask questions for clarification.</p>
A 2.2	15	Seminar and case study about the main subject.	<p>From these same farming production concepts, describe the relationships with basic environment concepts, like climate change, ecosystems, biodiversity maintenance, landscape improvement etc.</p> <p>Highlight case studies where multifunctional practices have enhanced farm income.</p>	<p>Analyse the case study in small groups.</p> <p>Discuss strategies to improve cash flow management.</p> <p>Prepare key points for presentation.</p>
A 2.3	15	Group work and discussion	<p>Explain the concept of depreciation in the context of agricultural assets.</p> <p>Provide examples of depreciation methods used in farming.</p>	<p>Work in pairs to calculate depreciation using provided examples.</p> <p>Discuss the impact of depreciation on farm profitability.</p> <p>Present their findings to the group.</p>

A 2.4	15	Brainstorming and group work	Discuss about support for sustainable means of rural life and improvement of heritage and cultural identity, for an effective fixation of the population in the rural environment, with greater rural dynamization.	<p>Brainstorm ideas in small groups on how to integrate multifunctional aspects into traditional farming practices.</p> <p>Discuss potential challenges and benefits.</p> <p>Present their innovative ideas to the class.</p>
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Materials:

- Laptops for searching and projectors for presenting the case study.
- Devices such as tablets and mobile phones for quick and visual gamification.
- Scientific calculators with financial mode for participants.
- Worksheets with examples of depreciation calculations/spreadsheet.
- Canva presentations.
- Handouts with examples of financial statements.
- Whiteboard and markers/digital board for illustrating key points.
- Case study handouts.
- Flipchart and markers/digital board.

References/Sources:

Ref 6: Gardner, B. L., & Rausser, G. C. (2001). *Agricultural Production* (B. L. Gardner & G. C. Rausser, Eds.; Vol. 1, pp. 3-741). Elsevier.

Ref 7: Junior, R. C., & Gameiro, A. H. (2020). Cash Flow in an Agribusiness Restructuring Process. *Journal of Agricultural Studies*, 8(4), 589.
<https://doi.org/10.5296/jas.v8i4.17850>

Ref 8: Obst, W. J., Graham, R., & Christie, G. (2007). *Financial management for agribusiness*. Landlinks Press.

Ref 9: Schuh, B. et al. (2022). *Research for AGRI Committee - The Future of the European Farming Model: Socio-economic and territorial implications of the decline in the number of farms and farmers in the EU*. European Parliament, Policy Department for Structural and Cohesion Policies, Brussels.

Other notes:

- Encourage participants to relate concepts to real-life scenarios in agriculture.
- Emphasise sustainable practices that can impact cash flow positively.
- Encourage participants to explore digital tools for tracking asset depreciation.
- Foster a discussion on sustainable practices and their economic impacts on farms.

Unit 3: Digitalisation of the agricultural, forestry, livestock and rural sectors

Outcomes:

KNOWLEDGE	SKILLS	ATTITUDES
<p>Student is able to:</p> <p>Understand the different systems for digitising processes in agriculture business.</p> <p>Recognize new and useful technologies and innovative workflows.</p> <p>Interpret photogrammetry, vegetation index and GIS (Geographic Information Systems)</p> <p>Compare results and make decisions after using GIS - precision farming and autonomous driving.</p> <p>Outline the pros of self-guided systems.</p> <p>Evaluate sensor´s respond</p> <p>Apply IoT sensors to agriculture.</p>	<p>Student is able to:</p> <p>Operate drone flights.</p> <p>Evaluate data analysis.</p> <p>Carry out maintenance on UAS/Drone aircraft.</p> <p>Carry out programming and use of agroforestry sensors.</p> <p>Adjust and chart data given by sensors.</p> <p>Develop workflows for different specific computer programs.</p>	<p>Students is able to:</p> <p>Have an innovative and open attitude to digital transformation.</p> <p>Have willingness to adapt to new methodologies and workflows.</p> <p>Create solutions for the challenges of the sector.</p> <p>Be committed to sustainability.</p>

Transversal skills:

Teamwork, adaptability, problem-solving, communication skills

- **Efficient communication:**
 - Ability to write clear and concise reports.
 - Ability to present research results in a coherent and persuasive manner.
 - Mastery of verbal and written communication in different contexts.
- **Critical thinking and problem solving:**
 - Ability to analyse complex information and synthesise data from various sources.
 - Ability to identify problems and develop innovative solutions.
 - Competence in making informed decisions based on evidence.

- **Collaboration and teamwork:**
 - Ability to work effectively in multidisciplinary teams.
 - Ability to manage conflicts and negotiate solutions.
 - Ability to cooperate and take advantage of individual strengths.
- **Time management and organization:**
 - Ability to plan and manage research projects.
 - Ability to organise tasks and resources, and ability to establish and meet deadlines.

Digital skills:

Software, electronics skills

- **Digital Literacy:**
 - Basic understanding of the use of digital tools and research software.
 - Ability to search, evaluate, and use online information effectively.
- **Analysis of data:**
 - Proficiency in using statistical analysis software and data visualisation tools (e.g., R, Python, Excel).
 - Ability to interpret data analysis results and draw meaningful conclusions.
- **Use of sector-specific technologies:**
 - Knowledge of emerging technologies in the agroforestry and livestock sector, such as IoT sensors, drones, and agricultural data management systems.
 - Ability to implement and use geographic information systems (GIS) and other technological tools applied to agriculture and livestock.
- **Cybersecurity and Digital Ethics:**
 - Ability to understand the basic cybersecurity principles to protect research information and data.
 - Awareness of the ethical and legal implications of the use of digital technologies.

Green skills:

Reduce, reuse, recycle

- **Knowledge in sustainability:**
 - Ability to understand sustainability principles and their application in the agroforestry and livestock sector.
 - Ability to evaluate the environmental impact of agricultural and livestock practices.
- **Environmental management:**
 - Ability to design and implement environmental management strategies in research projects.
 - Knowledge of environmental regulations and best sustainable practices.

- **Innovation and eco-efficiency:**
 - Ability to identify and promote innovative practices that improve eco-efficiency in agriculture and livestock.
 - Competence in the use of green technologies and renewable energies in the agroforestry context.
- **Education and environmental awareness:**
 - Ability to communicate the importance of sustainability and green practices to diverse audiences.
 - Ability to develop educational programs and information materials on sustainability.

Implementation Plan of Pedagogical Activities:

Date:	Location:	Duration 1h 20 min		
Description of participants: Agrarian teachers and trainers				
Expected number of learners:				
No. of Activity	Timing	Training Methods / Activity	What I do	What they (participants) do
A 3.1	10 min	Presentation of the different digitalization technologies applied to the agroforestry sector.	Present content on the different technologies applied to the agroforestry sector through slides and short videos.	Actively listen and understand the content on agroforestry digitalization.
A 3.2	5 min	Presentation of the case study.	Prepare and present the case study as well as the different computer programs to correctly develop the case study.	Carry out an analysis of the case study and plan, as well as classify and choose the different technologies for the development of the case study. Collect relevant information for the subsequent development of the case study.
A 3.3	55 min	Development of the case study presented in the presentation.	Guide and orient participants in the development of the different phases of the case study.	Apply and execute the planning described above. Distribute the different tasks to be carried out. Execute and develop the different phases of the case study using appropriate and coherent methods and technologies.

A 3.4	10 min	Evaluation and presentation of the work carried out on the case study.	Evaluate both the work developed by the participants and the process, methods and procedures for preparing the case study.	Self-assess the process, methods, procedures and final result of the case study. Carry out the final presentation of the case study.
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Materials:

- Articles and teaching material on digitalization of the agricultural, forestry and livestock sector in Europe.
- PC, smartphones, tablets, specific software.

References/Sources:

Ref 10: Rose, D. C., & Chilvers, J. (2018). Agriculture 4.0: Broadening Responsible Innovation in an Era of Smart Farming. *Frontiers in Sustainable Food Systems*, 2.

<https://doi.org/10.3389/fsufs.2018.00087>

Ref 11: Stafford, J. V. (2000). Implementing Precision Agriculture in the 21st Century. *Journal of Agricultural Engineering Research*, 76(3), 267-275.

<https://doi.org/10.1006/jaer.2000.0577>

Unit 4: Renewable Energies in rural areas

Outcomes:

KNOWLEDGE	SKILLS	ATTITUDES
<p>Student is able to:</p> <p>Describe different sources of renewable energy available in rural areas.</p> <p>Analyse the energy needs of the rural environment.</p> <p>Analyse the environmental impact of renewable energies in the environment.</p> <p>Recommend improvements to be achieved with the implementation of the adopted solutions.</p> <p>Present the roadmap of renewable energies.</p>	<p>Student is able to:</p> <p>Carry out a critical analysis of the different sources of energy.</p> <p>Rate the performance of energies with zero carbon footprint.</p> <p>Add to the renewable energies' impact the landscape maintenance.</p> <p>Learn the design and installation of renewable energy systems in rural environments.</p> <p>Determine the most adequate renewable energy according to</p>	<p>Students is able to:</p> <p>Evaluate the technical and economic availability of the projects.</p> <p>Acquire critical thinking for the selection of the equipment and materials</p> <p>Conduct an economic balance.</p> <p>Perform an analysis of the improvements achieved with the implementation of the adopted energy systems.</p>

<p>Familiarize themselves with the regulations and legal framework.</p> <p>Know the incentives and assistance.</p>	<p>the characteristics of the context.</p> <p>Justify the adopted solution based on estimated performance, environmental impact, and carbon footprint reduction.</p>	
<p>Transversal skills:</p> <ul style="list-style-type: none"> ● Ability to communicate effectively. ● Ability to work in teams. ● Ability to correctly resolve problems. 		
<p>Digital skills:</p> <ul style="list-style-type: none"> ● Ability to manage the information using digital devices: search, filter, assess and organise information in a proper and effective way. ● Ability to use collaboration online tools to share documents, edit them in a collaborative way and maintain an updated version of the shared information. 		
<p>Green skills:</p> <ul style="list-style-type: none"> ● Acquire the necessary knowledge to promote the use of renewable energies in rural areas. ● Ability to manage agricultural and livestock waste to convert it into raw materials for renewable energies. ● Ability to produce, install, and maintain renewable energy systems that minimise environmental impact and maximise energy efficiency. ● Ability to promote sustainable development and energy autonomy in rural communities. ● Ability to raise awareness about the environmental and economic benefits. ● Ability to enhance the quality of life in the rural environment. 		

Implementation Plan of Pedagogical Activities:

Date:	Location:	Duration: 1h 20min		
Description of participants: Agrarian teachers and trainers				
Expected number of learners:				
No. of Activity	Timing	Training Methods / Activity	What I do	What they (participants) do
A 4.1	10 min	Ice breaking methods/ brainstorming.	Guide the process establishing clear rules and policies. Encourage students' participation. Pick up the shared ideas.	Share ideas, knowledge and solutions.
A 4.2	10 min	Lecture method.	Present the employed renewable energies in rural areas, mind maps, regulations and rewards.	Collect documentary material and the most important data.
A 4.3	50 min	Case studies/ collaborative work.	Present the task and provide the legal documents necessary for the correct development of the task.	Perform a critical analysis of the distinctive renewable energies studied to determine the most suitable in a specific rural context.
A 4.4	10 min	Quantitative methodology/multiple choice questionnaire.	Elaborate the task and later assess the learners' performance.	Answer the presented questions in a clear manner, after the end of the unit.

Materials:

- Updated information on the different sources of renewable energy, such as solar, wind, thermal, mini-hydroelectric, biomass, and biogas energy.
- Studies and statistics on the importance of renewable energy in rural areas.
- Didactic materials: presentations, diagrams, charts, and videos.
- Concrete examples of successful renewable energy projects in different countries around the world to show how they can be practically implemented.
- Practical activity for students to apply what they have learned.
- Bibliographic references of reliable books, articles, and websites where more information on the topic can be found.

References/Sources:

Ref 12: Díaz , J. C. (2021). *Energías renovables y agricultura. Un convenio natural*.

Ref 13: IRENA. (2019). *International Renewable Energy Agency (IRENA)*. Irena.org.
<https://www.irena.org>

Ref 14: Torroba, A., Della Vecchia, F., & Orozco Ramírez, R. (2023). *Energías Renovables en el Mundo Rural*. <https://repositorio.iica.int/handle/11324/21584>

Unit 5: Compatibility of activities in MA

Outcomes:

KNOWLEDGE	SKILLS	ATTITUDES
Student is able to: Classify the different types of resources in MA. Evaluate the resources available in the agricultural company. Manage available resources. Plan MA activities.	Student is able to: Establish priorities for action in MA. Organize company resources in MA. Evaluate the results of the management plan and reformulate it. Manage production effectively and efficiently in MA.	Students is able to: Motivate management in MA. Promote the planning culture in MA.
Transversal skills: <ul style="list-style-type: none"> • Ability to plan MA activities. • Ability to adapt to changes and externalities in the rural world. • Ability to solve problems make decisions in MA management. • Resilience in the face of challenges and difficulties in rural and MA environments. 		
Digital skills: <ul style="list-style-type: none"> • Ability to promote the use of digital tools in students. • Ability to promote offers in multifunctional agriculture online. • Ability to conduct digital marketing. 		
Green skills:		

- Ability to reduce the inputs through effective and efficient management of resources.

Implementation Plan of Pedagogical Activities:

Date:		Location:		Duration: 75 min	
Description of participants: Agrarian teachers and trainers					
Expected number of learners:					
No. of Activity	Timing	Training Methods / Activity	What I do	What they (participants) do	
A 5.1	15 min	Brainstorm.	Propose challenges to the participants	Present solutions to the challenges presented.	
A 5.2	15 min	Case study/Challenge.	Prepare a brochure for a company dedicated to MA.	Analyse the company, classify the available resources and propose different productions according to the given example.	
A 5.3	25 min	Case study/Challenge.	Supervise the work of the participants - the previous case continues, and it is proposed that activities and productions of the company are planned.	(In groups of 4) Propose the components of company activities with a sustainable vision. Create Gantt diagrams, activity schedules, management of available resources.	
A 5.4	20 min	Case study/Challenge.	Present a simulation of the results of a company with MA.	Evaluate the company and propose the reformulation of its planning and resource management.	

Materials:

- Brochures of potential MA companies.
- Simulation of company results with MA.
- Computers with management and planning tools.
- Internet connection.

References/Sources:

Ref 15: Aguirre, M. F. (2020, December 11). *¿Cómo optimizar la gestión y el seguimiento de los recursos de un proyecto?* Appvizer.es. <https://www.appvizer.es/revista/organizacion-planificacion/gestion-proyectos/estimacion-de-recursos-de-un-proyecto>

Ref 16: Martins, J. (2024, February 19). *Tu guía para comenzar con la gestión de recursos.* Asana. <https://asana.com/es/resources/resource-management-plan>

Ref 17: Martins, J. (2024a, February 2). *Diagrama de Gantt: qué es y cómo crear uno con ejemplos.* Asana. <https://asana.com/es/resources/gantt-chart-basics>

Ref 18: Zarate, D. (n.d.). *Qué es un plan de acción, cómo se elabora y ejemplos* (N. Rodrigues, Ed.). Blog.hubspot.es. <https://blog.hubspot.es/sales/plan-de-accion-empresa>

Unit 6: Social demands and activities in MA

Outcomes:

KNOWLEDGE	SKILLS		ATTITUDES
<p>Student is able to:</p> <p>Recognizing the main Social demands - rural and communal development in relation to MA.</p> <p>Evaluate possible responses to social demands - rural and communal development in MA.</p>	<p>Student is able to:</p> <p>Draw strategies to evaluate and incorporate social demands in the implementation of MA.</p>		<p>Students is able to:</p> <p>Challenge social demands in the development of MA.</p> <p>Formulate a critical attitude taking into account MA as a tool to meet rural social or communal needs.</p>
<p>Transversal skills:</p> <ul style="list-style-type: none"> • Ability to communicate effectively. • Ability to work in teams as well individually • Develop creativity for problems solving • Education in personal values and coeducation 			
<p>Digital skills:</p> <ul style="list-style-type: none"> • Ability to communicate in digital environment using collaborative tools • Ability to create digital resources to teach and to raise awareness about social demand in MA 			

- Learning new technologies and adapting to changing digital environments
- Practising respectful and ethical behaviour online

Green skills:

- Proficiency identifying opportunities and create new strategies to respond to green challenges and social demands creativity
- Ability to dynamize rural life, rural work companies and workers in MA to establishes alliances
- Capacity to evaluate agritourism opportunities as strategy of avoid the rural depopulation
- Education in green values and coeducational gender equality rights

Implementation Plan of Pedagogical Activities

Date:	Location:	Duration: 90 min.		
Description of participants: Agrarian teachers, social-service and work teachers, and trainers				
Expected number of learners:				
No. of Activity	Timing	Training Methods / Activity	What I do	What they (participants) do
A 6.1	10 min	Mentimeter Quiz as a warm up activity and initial assessment.	Take a short quiz on basic concepts of multifunctional agriculture and its importance. Clarification of questions.	Replay the Quiz. Briefly discuss the results.
A 6.2	30 min	Interactive presentation including practical examples and case studies. Socratic speech development.	Present content on social demands - rural and communal development around MA: <ul style="list-style-type: none"> - Contribution to the viability of rural areas. - Protection of cultural and heritage values. - Protection against rural depopulation. - Protection of landscape values, biodiversity, soil and water management. - Recovery of forest cover. 	Develop collaborative learning. Negotiate the real relevant contents useful for the classroom group.

			<ul style="list-style-type: none"> - Promotion of food self-sufficiency. - Gender promotion and the role of women in rural development. - Promotion of social organisation. 	
A.6.3	40 min	Group research, digital dissertation and collaborative Padlet design.	Guide and facilitate students' research and collaborative work.	<p>Choose one or two social demands and analyse how MA can address those demands in their or another local community or even in a specific country or region.</p> <p>Present the results of the research on a collaborative Padlet.</p>
A.6.4	10 min	Recording a short video (Instagram reel or TikTok video).	Supervise students' work.	Present the audiovisual production and summaries the main concepts or ideas.

Materials:

- Scientific articles about social demands and multifunctional agriculture and other trusty references.
- Presentation slides.
- Wireless internet connection

References/Sources:

Ref 21: *Towards Multifunctional Agriculture for Social, Environmental and Economic Sustainability*. (n.d.). Retrieved October 21, 2020, from <https://www.globalagriculture.org/fileadmin/files/weltagrarbericht/IAASTDBerichte/IssuesBriefMultifunctionality.pdf>

Ref 22: Darnhofer, I. (2014). Resilience and why it matters for farm management. *European Review of Agricultural Economics*, 41(3), 461-484. <https://doi.org/10.1093/erae/jbu012>

Ref 23: Mihai, F. C., & Iatu, C. (2020). Sustainable rural development under Agenda 2030. Sustainability Assessment at the 21st century, 9-18.

<https://doi.org/10.5772/intechopen.90161>

Ref 24: De Groot, R. (2006). Function-analysis and valuation as a tool to assess land use conflicts in planning for sustainable, multi-functional landscapes. *Landscape and urban planning*, 75(3-4), 175-186. <https://doi.org/10.1016/j.landurbplan.2005.02.016>

Ref 25: Sánchez-Zamora, P., Gallardo-Cobos, R., & Ceña-Delgado, F. (2014). Rural areas face the economic crisis: Analyzing the determinants of successful territorial dynamics. *Journal of Rural Studies*, 35(76), 11-25.

<https://doi.org/10.1016/j.jrurstud.2014.03.007>

Ref 26: Schaller, L., et al. (2018). Agricultural landscapes, ecosystem services and regional competitiveness—Assessing drivers and mechanisms in nine European case study areas. *Land Use Policy*, 76(76), 735-745. <https://doi.org/10.1016/j.landusepol.2018.03.001>

Other notes: