Certification for STEAME Teacher Facilitator in the form of a micro-credential

PATH TO CERTIFICATION

The STEAME-Academy project and the European Federation of STEAME Teacher Facilitators Academies (EFSTeFA) is offering training for STEAME Education focusing on Project Based Learning approach. The self-training is available through the Federation Platform of STEAME Academies in different formats. These are either modules for self-study, related webinars, organized workshops by STEAME Regional Academies, Mentoring system and a Certification programme through evidence based implementation.

The STEAME PBL Competence Framework is published on 31 March 2024 and describes the competences that a future STEAME Teacher Facilitator should have andit is recommended for reading.

The Learning & Creativity Plans (L&C Plans) is a new name for Lesson Plans based on a template developed as a new tool for co-creator teachers. It is required that every L&C Plan is developed in cooperation between two teachers of two different disciplines, integrating through a project scenario the use of at least two different subjects of STEAME (Science, Technology, Engineering, Arts, Mathematics, Entrepreneurship) but not limited to these.

The European Federation of STEAME Teacher Facilitators Academie, since 15 January 2025 is inviting teachers to study, co-create and implement a L&C Plan leading to acquirement of the certification.

The requirements for a successful certification include:

(A) Learning and Training or Self-Learning and Training from the 14 modules. Short webinars of the 14 modules are available in https://steame-academy.eu/steame-video/. Check the Federation platform for available STEAME workshops organized by regional academies.

(B) Co-design and co-creation of a Learning & Creativity Plan with PBL approach. The L&C Plan could be created and implemented in your own language but an English translation must be provided. Access to examples of L&C plans are available in the Federation platform.

(C) Feedback on the developed L&C Plan may be received if requested from the regional STEAME Academies.

(D) Implementation of the L&C Plan with school students for a minimum of 6-9 hours (2-3 sessions of 3 hours in 2-3 meetings). The implementation is expected to be done jointly by the teachers who worked together in developing the L&C Plan. Evidence will be required, like

video recording of the sessions. Recordings will not be published but will be used only for the purposes of the certification. Any GDPR issues will need to be handled at your end. If no faces of school students are shown or are covered through the video editing, the video may be published for educational purposes with your permission.

(E) A short joint report by the collaborating teachers who are applying together for the certification is required using a special template provided by the Federation and is available in the Federation platform.

(F) The submission of the application to be certified will be made jointly by the two or more teachers via an online submission through the STEAME Regional Academy. In case there is no STEAME Regional Academy available in your country region then the Federation will accept direct submissions but such submission can only be made in English.

(G) School students participants in the L&C implementation will have to respond to an anonymous feedback evaluation either online or in a written document. The results of this survey have to be included in the 5 pages report and the raw data in excel to be sent as attachment to the report.

(H) The project certification committee will evaluate the report and evidence provided and will decide if the certification can be awarded and at what level. There are three success levels (Level 1 , Level 2, Level 3). The criteria and level descriptors are available here below:

Area 1: Contextualisation of STEAME projects

Area 1. Evaluation Rubric

Competence / level	Level 1	Level 2	Level 3
Competence 1. Design and implement context-bound STEAME projects	1.1.1 Partial integration of STEAME projects into the school's culture, with some inconsistencies	1.2.1 STEAME projects are fully integrated into the school's culture, aligning with existing practices and values.	1.3.1 STEAME projects are not only integrated but are driving forces within the school culture, inspiring continuous innovation and improvement.
	1.1.2 Occasional involvement of external actors, with roles and contributions only loosely defined.	1.2.2 Regular involvement of external actors, with clearly defined roles and meaningful contributions to the projects.	1.3.2 Extensive collaboration with a wide array of external actors, leading to groundbreaking initiatives and partnerships that transcend traditional boundaries.
Min-Max score	7		11
Competence 2.	**Level 1**	**Level 2**	**Level 3**

Consider formal education standards in STEAME projects	2.1.1. Basic understanding of formal education standards and attempts to align STEAME projects with them.	2.2.1. Basic understanding of formal education standards and aligns STEAME projects with them to some extent.	2.3.1. Exceptional mastery of formal education standards, incorporating them seamlessly into project design and implementation.
	2.1.2. STEAME projects have basic connections to standards but lack detailed alignment.	2.2.2. STEAME Projects show alignment with standards, but there are occasional gaps in content coverage.	2.3.2. Projects are innovative, pioneering new approaches to teaching and learning while aligning with standards.
Min-Max Score	9		13
Competence 3. Monitoring STEAME projects and reporting	**Level 1**	**Level 2**	**Level 3**
	3.1.1. Limited ability to foresee potential deviations on STEAME projects	3.2.1. Solid ability to foresee potential deviations of STEAME projects and proactively plans to address them	3.3.1. Solid ability to foresee potential deviations, applying innovative and groundbreaking strategies to address them
	3.1.2. Intuitive application of basic monitoring measures	3.2.2. Ability to choose the most suitable monitoring strategy for each STEAME project	3.3.2. Ability to choose the most suitable monitoring strategy for each STEAME project and can justify the choice
	3.1.3. Ability to informally report on the progress of STEAME projects, providing basic insight	3.2.3. Delivers comprehensive reports on the development of STEAME projects, to the extent that they include different sources of evidence and some level of analysis	3.3.3. Delivers comprehensive reports on the development of STEAME projects, to the extent that they include different sources of evidence and systematic analysis providing not only detailed insights but also actionable

			recommendations for continuous improvement
Min-Max score	18		24

Area 2: Methodological aspects of STEAME projects

Area 2. Evaluation Rubric

Competence / level	Level 1	Level 2	Level 3
Competence 4: Embed learning in truly interdisciplinary STEAME projects	4.1.1. Projects integrate at least two STEAME subjects with limited interaction between STEAME disciplines	4.2.1. Projects integrate two or more STEAME subjects with interaction between STEAME disciplines	4.3.1 Projects integrate two or more STEAME subjects with substantial interactions between STEAME disciplines
	4.1.2. The disciplines represented in the project, especially Arts and Entrepreneurship, add value to student learning.	4.2.2. The disciplines represented in the project, especially Arts and Entrepreneurship, add a lot of value to student learning.	4.3.2. The project shows an in-depth understanding of the disciplines represented in it, especially Arts and Entrepreneurship, and they are addressed in a way that adds a lot of value to student learning.
	4.1.3. Projects show signs of student involvement in designing, developing, and constructing hands-on solutions to a problem.	4.2.3 Projects show a moderate level of student involvement in designing, developing, and constructing hands-on solutions to a problem.	4.3.3. Projects show a moderate level of student involvement in designing, developing, and constructing hands-on solutions to a problem.
Min-Max score	21		27
	Level 1	**Level 2**	**Level 3**

Competence 5: Guide student learning in STEAME projects	5.1.1. Basic attempts to scaffold student learning through project-like activities.	5.2.1 Proficient use of a variety of scaffolding techniques to support student learning in STEAME projects.	5.3.1. Mastery of diverse scaffolding techniques, providing highly effective support for student learning in STEAME projects.
	5.1.2. Scaffolding strategies are limited in scope and may not effectively support all students.	5.2.2. Scaffolding strategies are tailored to individual and group needs, ensuring effective support for all students.	5.3.2. Scaffolding strategies are personalised, differentiated, and seamlessly integrated into STEAME projects, fostering high levels of student engagement and understanding.
	5.1.3. Limited adaptability in responding to diverse student learning needs	5.2.3. Adaptability in responding to challenges, adjusting scaffolding methods based on student progress and feedback.	5.3.3. Exceptional adaptability and sensitivity to diverse student needs, creating an inclusive and empowering learning environment for all students.
Min-Max score	24		30
Competence 6: Support STEAME projects with the right learning environment and resources	**Level 1**	**Level 2**	**Level 3**
	6.1.1. Projects include basic collaborative activities within the classroom, such as group discussion, peer-review or jigsaw	6.2.1. Projects include diverse and well-structured collaborative activities that align with learning objectives and engage all students.	6.3.1. STEAME projects are framed in a transformative learning environment where collaboration is a fundamental aspect, fostering creativity, critical thinking, and mutual support among students, teachers, and other organisations.
	6.1.2. Collaborative activities have some level of	6.2.2. Projects promote teamwork,	6.3.2. Projects promote teamwork,

	depth or integration with the curriculum.	communication, and problem-solving skills among students, facilitating a positive and inclusive collaborative environment.	communication, and problem-solving skills among students, among groups of students and the teacher, as well as among students and other actors outside of school, thus facilitating a positive and inclusive collaborative environment.
	6.1.3. Demonstrates a willingness to learn and explore collaboration with other teachers and / or organisations outside of the school, although implementation may be limited.	6.2.3. Engages with stakeholders, such as parents, experts, or community members, to enrich collaborative learning experiences and broaden students' perspectives	6.3.3. Actively collaborates with a wide range of stakeholders, fostering partnerships, organizing collaborative events, and creating a supportive network that enhances students' learning experiences and opportunities.
Min-Max score	27		33

Area 3: Student agency in STEAME PBL teaching

Area 3. Evaluation Rubric

Competence / level	Level 1	Level 2	Level 3
Competence 7: Involve students in STEAME projects	7.1.1. Partial involvement of students in determining the project to be developed.	7.2.1. Substantial involvement of students in determining the project to be developed.	7.3.1. Very substantial involvement of students in determining the project to be developed.
	7.1.2. Identifying to some extent the students'	7.2.2. Identifying to some extent the students' interests around	7.3.2. Identifying and organising the students' interests

	interests around STEAME projects.	STEAME with a variety of methods and techniques.	around STEAME with a wide range of methods and techniques.
	7.1.3. Partially listening to students' suggestions.	7.2.3. Considering students' suggestions in some parts of the project.	7.3.3. Proactively considering students' suggestions to the project and helping to structure them.
Min-Max score	30		36
Competence 8: Promote student self-regulation and metacognition in STEAME projects	**Level 1**	**Level 2**	**Level 3**
	8.1.1. Planning a few checkpoints to encourage general reflection throughout the project.	8.2.1. Planning and setting a few checkpoints to encourage reflection about a few aspects of the project throughout it.	8.3.1. Planning and setting a few checkpoints to encourage productive reflection about all important aspects of the project throughout it.
	8.1.2. Sharing assessment criteria with students after the project has started.	8.2.2. Sharing assessment criteria with students in a timely way.	8.3.2. Building together and sharing assessment criteria with students in a timely way.
	8.1.3. Promoting reflection on the learning progress towards the end of the project.	8.2.3. Promoting reflection on the learning progress during the project progress, and giving feedback to students.	8.3.3. Promoting reflection on the learning progress during the project progress, giving feedback to students and giving time to new metacognition and learning regulation transfer.
Min-Max score	33		39
	Level 1	**Level 2**	**Level 3**

Competence 9: Engage and coach to support learning	9.1.1. Connects STEAME projects to students' emotional domain	9.2.1. Connects STEAME projects to students' emotional domain and moral values	9.3.1. Connects STEAME projects to students' emotional universe and moral values in an unexpected way
	9.1.2. Setting a few control points during the project.	9.2.2. Guiding students in setting some control points during the project.	9.3.2. Guiding students in setting control points during the project in a systematic way, also giving social spaces of debate and discussion of the progress of the project.
	9.1.3. Promoting a work environment where students can express themselves but their opinions and suggestions are not considered.	9.2.3. Promoting a work environment where students can express themselves and their opinions and suggestions are considered.	9.3.3. Promotes and manages a safe environment where all voices are heard and respected in a democratic way.
Min-Max score	36		42

Area 4: Sustainability of PBL applied to STEAME

Area 4. Evaluation Rubric

Competence / level	**Level 1**	**Level 2**	**Level 3**
Competence 10: Reflect on performance as a STEAME project facilitator	10.1.1. Intuitively reflecting on the teaching role in STEAME projects.	10.2.1. Reflecting on the teaching role in STEAME projects with a sense of purpose.	10.3.1. Reflecting on the teaching role in STEAME projects with a sense of purpose, in a systematic way.
	10.1.2. Taking the negative aspects of previous performance into	10.2.2. Taking negative, positive and neutral aspects of previous	10.3.2. Taking negative, positive and neutral aspects of previous

	account when defining new STEAME projects.	performance into account when defining new STEAME projects.	performance into account when defining new STEAME projects and other aspects that played a role and can be solved.
	10.1.3 Involving students in the reflection and critical assessment of delivered STEAME projects.	10.2.3. Involving students and other teachers in the reflection and critical assessment of elivered STEAME projects.	10.3.3. Involving students, other teachers and other stakeholders in the reflection and critical assessment of delivered STEAME projects.
Min-Max score	39		45
Competence 11: Apply creativity and innovation in STEAME projects	**Level 1**	**Level 2**	**Level 3**
	11.1.1. Awareness that STEAME projects are not innovative in nature, but that thinking outside of the box is needed to ensure their added value.	11.2.1. Thinking outside of the box to ensure the added value of STEAME projects.	11.3.1. Thinking outside of the box and establishing mechanisms to ensure the added value and sustainability of STEAME projects
	11.1.2. Openness to incorporate changes and modifications in the design, implementation, or evaluation of STEAME projects.	11.2.2. Partially incorporating changes in the design, implementation, or evaluation of STEAME projects.	11.3.2. Systematically reviewing and incorporating changes and innovations in both the design and implementation and evaluation of STEAME projects.
	11.1.3. Using innovative tools, resources, or methods in an intuitive way.	11.2.3. Using innovative tools, resources, or methods in a reasoned way.	11.3.3. Proactively searching for and using innovative tools, resources, or methods in a reasoned way and for the constant improvement of the learning process.

Min-Max score	42		48
Competence 12: Keep learning about STEAME projects and share knowledge	**Level 1**	**Level 2**	**Level 3**
	12.1.1. Mastering the disciplinary and pedagogical knowledge received in initial training.	12.2.1. Moderate participation in teaching training spaces that complement the disciplinary and pedagogical knowledge received in initial training.	12.3.1. Shows a commitment to continuing training and participates in training spaces.
	12.1.2. Sharing the teaching role with another colleague within the school.	12.2.2. Promoting and participating in interdisciplinary work teams about STEAME projects within the school.	12.3.2. Promotes co-working experiences about STEAME projects inside and outside the school, with colleagues, experts, etc.
	12.1.3. Recognising the importance of being part of communities and participating occasionally.	12.2.3. Recognising the importance of being part of communities and frequently participating in them.	12.3.3. Engaging and promoting spaces for interaction with other teachers, communities of practice, etc.
Min-Max score	45		51

Overall Minimum Score: 331

Overall Maximum Score: 399