

Guide to Micro-Credentials

Micro-Credentials for Higher Education Systems of Georgia and Armenia: South Caucasus
Lighthouse Project
(Micro-GEAR)



LEPL –National Center for Educational Quality Enhancement

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Micro-GEAR



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I. INTRODUCTION

This guide outlines the principles governing the development, quality assurance, and implementation of micro-credits within the framework of the Georgian National Qualifications Framework (NQF). It is based on the European approach to micro-credentials¹, the standards of the European Higher Education Area, and the recommendations for quality assurance (ESG-2015). Its aim is to support education providers and industry in the implementation of micro-credentials.

The guide includes:

- a definition of the essence and purpose of micro-credentials;
- standards and procedures for designing micro-credentials and ensuring quality;
- the methodology for determining their alignment with the level descriptors of levels 6 and 7 of the National Qualifications Framework.

II. DEFINITION OF MICRO-CREDENTIALS

Micro-credential is a small-scale educational programme certifying the learner's knowledge, skills, and competencies. A micro-credential is delivered by a reliable provider, is designed to meet the needs of industry, the labour market, or society, and adheres to established quality assurance standards. It can be offered as a stand-alone programme or combined with other micro-credentials. Additionally, a micro-credential may be recognised as prior learning toward obtaining a broader qualification.

Micro-credential is implemented at levels 6 and 7 of the National Qualifications Framework and is recorded in the National Qualifications e-registry.

¹ Council Recommendation of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability 2022/C 243/02 [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H0627\(02\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H0627(02))



III. OBJECTIVES OF MICRO - CREDENTIALS

Micro-credentials aim to ensure:

- targeted learning that meets the demands of a rapidly changing labour market;
- development of skills in areas such as information and communication technologies, business and administration, education, arts, tourism, and others;
- access to education and contribution to reducing social inequalities, particularly for those with limited opportunities to pursue a full qualification;
- recognition of the learning outcomes achieved within the programme at both national and international levels.

IV. CHARACTERISTICS OF MICRO - CREDENTIAL

There is no universally accepted definition of micro-credentials worldwide; however, all interpretations related to this learning experience can agree that it is a small-scale learning experience focused on acquiring and developing knowledge, skills, and competencies that meet labour market demands. Micro-credentials ensure the portability of this learning experience and its combination with other micro-credentials for the purpose of obtaining a broader qualification. Micro-credentials share the following common characteristics worldwide:

- the acquisition of small units of knowledge, skills, and competencies that have particular significance and value for the employability or professional needs.
- verification by a recognised and trusted provider (for example, an educational institution or an industry organisation);
- issuance of a digital artifact, such as a digital certificate or badge, which is considered an alternative to a traditional qualification document².

² C.O.L. 2019. Designing & Implementing Micro-Credentials: A Guide for Practitioners <https://www.che.ac.ls/wp-content/uploads/2019/09/14-Designing-and-Implementing-Micro-Credentials-A-Guide-for-Practitioners.pdf>



Micro-credentials have specific characteristics, which are grouped below:

- **Stackable Credit:** Some institutions offer stackable micro-credentials, where individual credits can be accumulated toward obtaining a broader qualification.
- **Recognition of Prior Learning:** Micro-credentials offer an excellent opportunity to accumulate and combine knowledge, skills, and competencies, and through recognition of prior learning, they make it possible to obtain broader qualifications.
- **Filling Graduates' Knowledge:** It is often expected that graduates of bachelor's or master's programmes develop skills and attributes that go beyond the scope of their core qualification or explore it in a more focused way within a specific area. The study of some of these issues may serve the acquisition of specific knowledge and skills, or be more closely related to the development of so-called soft skills, ethics, or civic responsibility. Due to their small-scale, diverse and focused character, micro-credentials help higher education graduates enhance relevant skills based on their needs³. (**University of Melbourne, 2021**).

Micro-Credentials:

- should be targeted — focused on acquiring or developing a specific skill, knowledge, or competence.
- should have clearly articulated and transparent learning outcomes and undergo internal and external quality assurance procedures.
- the involvement of stakeholders should be ensured during the development and/or implementation process, including the involvement of industry representatives, industry associations and regulatory bodies (where applicable), as well as employers.
- the implementation process should be flexible and provide opportunities for learning in face-to-face, online, or blended formats.

4.1 Credit Volume for Micro-Credentials

The range of credit volumes varies across countries; in some, only an upper limit is set, which in certain cases is 40–45 credits. However, considering the specifics of our country's higher education system, in order to develop realistic, measurable, and achievable learning outcomes within micro-credential programmes, and to assess the achievement of these outcomes through

³ O'Leary, Paul; Zeta Dooley; Ken McCarthy. 2022. A Quality Framework for HE Micro-Credentials. 8th International Conference on Higher Education Advances (HEAd'22) Universitat Politècnica de València. <https://headconf.org/wp-content/uploads/pdfs/14673.pdf>



appropriate mechanisms, it is recommended to define the minimum volume of micro-credits as no less than 1 ECTS credit and the maximum as no more than 30 ECTS credits.

According to the Order #3 dated January 5, 2007 issued by the Minister of Education and Science of Georgia, this corresponds to half of a full academic year's workload as defined in the "Rule on Calculating Credits for Higher Education Programmes."

V. DESIGNING MICRO-CREDENTIALS AND QUALITY ASSURANCE

In the guideline developed by the European Association for Quality Assurance in Higher Education (ENQA) in 2023 titled "Quality Assurance of Micro-Credentials: Expectations within the Context of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)", it is noted that the quality assurance system for micro-credentials generally depends on the national context and requires consideration of existing quality assurance approaches. External quality assurance procedures should be flexible and tailored to the specific characteristics of micro-credentials. In turn, the quality assurance of micro-credentials should be based on the existing framework.

- Incorporating micro-credentials in external quality assurance processes is beneficial; however, the implementation of micro-credentials in practice is a multifaceted and complex process.
- In the quality assurance process, the primary priorities are given to transparency, recognition, stackability, and portability of micro-credentials.
- It is advisable to consider various models of collaboration among stakeholders, which would enable quality assurance agencies to re-assess their mandates and roles.⁴

National Standards for Quality Assurance in Higher Education are based on the European Standards and Guidelines for Quality Assurance (ESG, 2015), adopted within the European

⁴ European Association for Quality Assurance in Higher Education – ENQA. 2023. QUALITY ASSURANCE OF MICRO-CREDENTIALS: Expectations within the Context of the Standards and Guidelines for Quality Assurance in the European Higher Education Area. <https://www.enqa.eu/wp-content/uploads/ENQA-micro-credentials-report.pdf>



Higher Education Area (EHEA), which define the fundamental principles of quality assurance that can be applied to the implementation of Micro-Credentials. According to these standards, the internal and external quality assurance of micro-credentials should be structured and transparent, incorporate a learner-centered approach, and be based on learning outcomes to ensure their recognition and effective use.

At the national level, the quality assurance standards for micro-credentials should be based on the accreditation standards for higher education programmes.

VI. OBTAINING THE RIGHT TO IMPLEMENT MICRO-CREDENTIALS

If a legal entity wishes to implement a micro-credential course, it must undergo a process to obtain the right to offer micro-credentials, which determines whether institution meets the standards set by the state for micro-credential courses.

A standard is a requirement established by the state that a legal entity must meet to be able to implement the corresponding micro-credential.

The state establishes the following standards for obtaining the right to implement micro-credentials:

- Design and Development of Micro-Credentials
- Methodology and Organisation of Teaching, Adequacy of Evaluation of the Micro-credential Course Mastering
- Application of Learner-Centered Approaches
- Providing Teaching Resources
- Quality Assurance

Any legal entity has the right to implement a micro-credential course. If the implementing institution is not a higher education institution, it must also submit an agreement with a higher education institution regarding the recognition of learning outcomes and credits earned through the implementation of the micro-credential course. Higher education institutions implementing accredited higher education programmes may also offer micro-credential(s) based on an accredited higher education programme, without obtaining a separate right, by registering them in the relevant e-system. In the relevant e-system, the higher education institution must submit a self-assessment report in which it describes how it complies with the standards established by



the procedure for obtaining the right to implement micro-credentials. After acknowledging the submission of the application, the Center is authorised to conduct both scheduled and unscheduled monitoring of the institution.

VII. SUBMISSION OF AN APPLICATION TO THE CENTER FOR OBTAINING THE RIGHT TO IMPLEMENT A MICRO-CREDENTIAL

An application for obtaining the right to implement a micro-credential may be submitted to the Center either electronically (through electronic communication channels) or in hard copy (by physically visiting the Center).

Submission of the application through electronic communication channels is possible via:

- electronic document management system -if your institution uses such a system;
- or by sending the application to the Center's official e-mail address: info@eqe.ge to apply for the right to implement a micro-credential.

If submitting the application in person at the Center, the completed application form and attached documentation must be provided via an electronic data carrier (such as a disk or memory card).

The application submitted for obtaining the right to implement a micro-credential must be completed on the institution's official letterhead and accompanied by the completed self-evaluation form of the institution seeking the right to implement the micro-credential course, including all annexes specified in the form. The institution may, if it wishes, also submit additional annexes to demonstrate compliance with the indicator/criterion/component of the standards defined by the procedure for obtaining the right (if applicable).

Submitting the application to the Center means that the administrative process for obtaining the right to implement a micro-credential has officially commenced. The decision on granting the right or refusing to grant the right shall be made within 60 working days from the date of submission of the application.

The learner's workload in micro-credentials is calculated using the European Credit Transfer and Accumulation System (ECTS), where 1 ECTS credit equals 25–30 hours.

Validity period of the right to implement a micro-credential - the right to implement a micro-credential is granted for a term of two years.



(Rule for submitting an application to the Center to obtain the right to implement a micro-credential for the purpose of acquiring institutional status; The self-evaluation form for an applicant seeking institutional status and the guide for completing the self- evaluation form can be found on the official website of the LEPL – National Center for Educational Quality Enhancement - eqe.ge).

Upon the expiration of the two-year term, the institution loses the right to implement micro-credentials. To re-gain the right to offer micro-credentials, the institution must submit an appropriate application to the Center.

The application submitted for the purpose of obtaining the right to offer micro-credentials must include: Justification of the needs of employers, industry, or society in the relevant field (e.g., digital skills, education, tourism); minutes must be submitted demonstrating the consultations held with employers, professional associations, or regulatory/governmental bodies.

The alignment of learning outcomes with Levels 6 and 7 of the National Qualifications Framework of Georgia must be determined in accordance with the “Methodology for Determining the Compliance of Micro-credential Learning Outcomes with the Descriptors of the 6th and 7th Levels of the National Qualifications Framework”⁵; see the subchapter with the aforementioned title.

VIII. EVALUATION OF THE APPLICATION SUBMITTED FOR OBTAINING THE RIGHT TO IMPLEMENT A MICRO-CREDENTIAL

The National Center for Educational Quality Enhancement shall evaluate the application submitted by a legal entity/institution for obtaining the right to implement a micro-credential within 3 working days. The purpose of the evaluation is to determine the extent to which the submitted application complies with the requirements established by the “Rule on Obtaining the

⁵ The methodology will be developed subsequent to the establishment of the regulatory legal framework for micro-lending.

Right to Offer Micro-credential Courses, as well as on Suspension and Termination of the Right to Implement a Micro-credential” (hereinafter – the Rule)⁶.

If a deficiency is identified during the review process (e.g., an incorrectly completed self-evaluation form by the micro-credential course provider, failure to submit mandatory annexes in the prescribed format, etc.), the Center shall set a period of no less than 5 and no more than 15 working days to fix the issue.

If the deficiency is fixed within the specified period, the Center shall issue an order granting the applicant the status of a seeker of the right to implement the micro-credential course; however, if the deficiency is not fixed within the same period, the Center shall issue an order to leave the application without further review.

If no deficiency is identified in the application submitted for obtaining the right to implement a micro-credential, the Director of the Center shall issue an order within 10 calendar days of submission, recognising the applicant as a seeker of the status to implement micro-credential course. If deficiencies are identified in the application and are fixed within the deadline specified by the Center, the Director of the Center shall issue an order within 15 working days from the date of correction, recognising the applicant as a seeker of the status to implement micro-credential course.

If the deficiencies in the application are not fixed, or if the application is re-submitted with deficiencies, the Center is entitled to issue an order to leave the application without review.

Within 10 working days after recognising the applicant as a seeker of the status to implement micro-credential course, the Center shall issue an order on the formation of an expert group for the visit to the applicant institution.

IX. FORMATION OF THE EXPERT GROUP

The expert group includes:

- Higher Education Quality Assurance Expert;
- Micro-Credential Course (Curriculum) Expert;

⁶ This specific regulation will be formulated following the creation of the legal framework governing micro-credits

- Field Expert;
- Material Resources and Infrastructure Expert;
- Learner Expert;
- Employer.

This order shall be sent to the applicant seeking the right to implement the micro-credential course for their information who shall be notified in advance of the date and the composition of the expert group that will visit the institution. The applicant seeking the right to implement the micro-credential course is entitled to place a motion for preclusion of the expert(s) and submit the corresponding justification to the Center within 2 working days from the date of receiving the order. A conflict of interest with one or more members of the expert group may serve as grounds for recusal. The Center shall review the recusal request submitted by the applicant seeking the right to implement the micro-credential course, within 3 working days.

X. VISIT OF THE EXPERT GROUP

After the expert group is formed, the Center provides them with the application submitted by the institution for obtaining the right to implement the micro-credential. The expert group reviews the application and prepares a visit agenda, specifying the day on which each issue will be examined. The Center sends this document to the institution.

Expert group visits the institution on the dates specified by the Order of the Center Director.

In order to determine the institution's compliance with the standards established for obtaining the right to implement a micro-credential, the experts review the institution's documentation, observe the facilities, and interview relevant stakeholders. The institution is responsible to support the expert group throughout their visit, and in preparation of the evaluation report. They are responsible for submitting all additional documents, as necessary, and ensure interviews with persons requested by the experts. On the final day of the visit, the expert group presents the key findings to the institution orally.



XI. PREPARATION OF THE REPORT ON THE VISIT CONDUCTED FOR OBTAINING THE RIGHT TO IMPLEMENT THE MICRO-CREDENTIAL

The expert group develops a draft report and sends it to the Center. The Center verifies the formal compliance of the draft report with the standards defined by the procedure for obtaining the right to implement the micro-credential, and upon meeting the requirements, it sends the draft report to the applicant. Within 5 calendar days upon receiving the draft report, the institution may submit to the Center a reasoned position regarding the factual circumstances stated in the draft report. The expert group is entitled to take the reasoned position into account when preparing the final report. The final report is sent to the institution and to the Accreditation Council of Higher Education Programmes.

XII. STAGE - CONDUCTING THE ORAL HEARING ON THE ISSUE OF OBTAINING THE RIGHT TO IMPLEMENT THE MICRO-CREDENTIAL AND MAKING THE DECISION BY THE ACCREDITATION COUNCIL

The decision on granting the right to implement the micro-credential is made by the Accreditation Council for Higher Education Programmes. The Council meeting is public. The applicant institution shall be notified of the Accreditation Council meeting at least 7 calendar days in advance. The seeker of the institutional status is entitled to participate in the oral hearing. The Council makes the decision by a majority vote of the members attending the meeting. The Accreditation Council announces its decision to the applicant institution during the oral hearing



Within 10 working days of the Accreditation Council meeting, the Council prepares a minute and issues an order regarding its decision, signed by the Chair and the Secretary of the Council. The decision enters into force immediately upon its publication on the Center's website.



XIII. STANDARDS FOR OBTAINING THE RIGHT TO IMPLEMENT MICRO-CREDENTIALS (DRAFT)

Description	Assessment Criteria	Indicator/Evidence
1. Design and Development of a Micro-Credential Course		
1.1 Objective(s) of the Micro-Credential		
<ul style="list-style-type: none"> The course objectives consider the specificity of the field of study, and the specifics of a first- or second-cycle higher education programme, within the framework of which the recognition of the respective micro-credential is permissible. They also consider the specific characteristics of the micro-credential course and define the set of knowledge, skills and competences a programme aims to develop in graduates. They also illustrate the contribution of the programme to enhancing the learner’s qualifications, improving competencies, and meeting labour market demands. 	<ul style="list-style-type: none"> The objectives of the micro-credential are clearly defined, realistic and achievable; The objectives take into account the specifics of the field, the cycle and the specific characteristics of the micro-credential course; Define the set of knowledge, skills and competences the course aims to develop in graduates. The objectives reflect the contribution it makes to enhancing the learner’s qualifications, improving competencies, and meeting the demands of the labor market. 	<ul style="list-style-type: none"> Syllabus of the micro-credential course; Analysis of labour market demands and/or vacancies, or a survey of employers regarding the need for the skills and competencies addressed by the course objectives; A brief description of the programme in accordance with the mandatory and/or recommended fields defined by the European approach to micro-credentials, as set out in Council of Europe document N 2022/C 243/02 of 16 June 2022.⁷

⁷ European Commission. 2022. European approach to micro-credentials for lifelong learning and employability (2022/C 243/02) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022H0627%2802%29&qid=1759397983975>



	<ul style="list-style-type: none"> • They are consistent with the mission, objectives, and strategy of the implementing institution; as well as with the objectives of the higher education program at the respective cycle, within the framework of which the micro-credential may be recognised; • Take into account the demands, trends, and needs of both the local and international labour markets. • 	
<h3>1.1 Learning Outcomes of the Micro-Credential</h3>		
<p>The learning outcomes of the micro-credential are logically connected to the course objectives, the specific characteristics of the field of study, and the demands of the labour market.</p> <p>Programme learning outcomes describe knowledge, skills, and/or the responsibility and autonomy, which the students gain upon the completion of the programme.</p>	<p>Learning Outcomes of the Micro-Credential:</p> <ul style="list-style-type: none"> • Correspond to the aims of the programme and include main knowledge, skills or/and responsibility and autonomy envisaged by the content; • they are measurable, achievable and realistic; • correspond to the relevant level of the National Qualifications Framework and the relevant level of higher education, and specifies the detailed field as defined by the Classification of Fields of Study. 	<ul style="list-style-type: none"> • Syllabus of the micro-credential course; • Mapping grid of course aims and learning outcomes; • Analysis of the demands of labour market and employers; • A document confirming the participation of the interested persons in drafting the course learning outcomes; • Information on the career development of alumna (in case of the ongoing programme); • Indicator of graduates' progression to the next level of higher education and their employment rate. • Micro-credential course provider website;

	<ul style="list-style-type: none"> • are based on the Subject Statement Benchmarks (if applicable) developed on basis of the NQF; • are consistent with the specifics of the field and the labour market; • All relevant stakeholders participate in the development of the programme’s learning outcomes (academic staff, learners, graduates, employers, representatives of the regulatory body in the regulated field, and others); • Persons involved in the implementation of the programme introduce the learning outcomes to all interested parties. • If applicable, the learning outcomes aimed at developing practical, soft, and transferable skills within the micro-credential are clearly defined. 	<ul style="list-style-type: none"> • Link to the LMS or other type of electronic educational platform used for micro-credential (if any); • Interview results with programme implementers (director, educational staff, students, graduates, and employers). • Learning outcomes oriented toward developing practical, soft, and transferable skills as defined in the learning outcomes (if applicable).
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1.2 Evaluation Mechanism of the Programme Learning Outcomes

<p>The procedures by which the achievement of learning outcomes in the micro-credential course are measured, assessed, and verified are clearly defined and transparent.</p>	<ul style="list-style-type: none"> • The assessment process of the micro-credential learning outcomes is consistent and transparent, taking into account the level of higher education and a periodicity appropriate to the specifics of the field. • It includes appropriate forms and methods of assessment (both direct and indirect) that enable the determination of whether 	<ul style="list-style-type: none"> • Mechanism of the evaluation of learning outcome is accessible to all interested; • Rubrics for assessing assignments/exams; samples of assessments and completed assignments/works (e.g., tests, project tasks and completed assignments, papers, and other examples). • Syllabus of the micro-credential Course
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	<p>learners have achieved the course learning outcomes.</p> <ul style="list-style-type: none"> • The involvement of all interested parties ((employers, graduates, professional associations and/or national regulatory bodies of the field, among others) in the evaluation of the learning outcomes is provided; • The academic staff involved in the course are familiar with the evaluation methods of learning outcomes; • The staff implementing the course get assistance to draft, measure and analyse the learning outcomes. • The analysis of the results of the micro-credential learning outcomes evaluation is used to improve the course. It implies the revision and development of the course content and/or evaluation system and /or resources (in case of necessity). 	<ul style="list-style-type: none"> • Results of surveys of graduates, employers, and, if applicable, professional associations and/or national regulatory bodies in the field, as well as other relevant stakeholders; • Results of the interviews; • Instruments and mechanisms elaborated to assess learning outcomes; • Materials (reports, protocols and others) confirming the discussion of the learning outcomes evaluation results.
<p>1.3 Ensuring Employer Involvement in the Elaboration of the Micro-Credential</p>		
<p>Active participation of the representatives of the labour market and the adequate reflection of their requirements in the course learning outcomes is ensured during the development of micro-credential learning outcomes and their assessment approaches.</p>	<ul style="list-style-type: none"> • The micro-credential course provider has a formal mechanism for collaboration with labour market representatives; the specific number of working meetings or consultations with labour market representatives is defined and justified. 	<ul style="list-style-type: none"> • Agreement(s) or Memorandum(s) of Understanding signed with labor market representatives. • Minutes or reports of meetings held with labour market representatives;



	<ul style="list-style-type: none"> • Written confirmation from labour market representatives regarding the relevance of the micro-credential course. 	<ul style="list-style-type: none"> • Official correspondence sent to and received from labour market representatives (if applicable).
<h3>1.4 Justification of the Need for the Micro-Credential and Its Connection to Labour Market Demands</h3>		
<p>Needs Diagnosis — A Brief, Evidence-Based Justification (based on empirical data and/or reports from relevant regulatory bodies and organizations and/or sectoral documents and standards), demonstrating that the knowledge, skills, and competencies specified in the micro-credential course are in demand in the local and/or international labour market.</p>	<ul style="list-style-type: none"> • The need for developing the micro-credential course is justified by vacancy analysis and/or labor market research. Where applicable, based on international regulatory standards of the relevant industry and/or the results of international labour market research. • The development of the micro-credential is also justified by research on employment of professionals in the relevant field and/or graduates of relevant academic programmes, or through graduate surveys. 	<ul style="list-style-type: none"> • Labour Market Research; through a document analysing published vacancies and/or a labour market research report, which, where applicable, also reflects international regulatory standards of the relevant industry and the results of international labour market research. • Results of surveys and/or research involving professionals employed in the field and graduates of academic programmes. • Results of employer interviews.
<h3>1.5 Connection of the Micro-Credential Learning Outcomes to Higher Education Programme(s) and/or to Labour Market Demands</h3>		
<p>The connection between the micro-credential learning outcomes and higher education programme(s), as well as their</p>	<ul style="list-style-type: none"> • The higher education programme(s) within which the learning outcomes achieved through the micro-credential course can be recognised are defined. • It is justified how the learning outcomes of the micro-credential course align with 	<ul style="list-style-type: none"> • At least, one higher education programme is specified within which the learning outcomes achieved through the micro-credential can be recognised. An agreement and/or memorandum of cooperation signed with the

<p>alignment with labour market demands, is clearly defined.</p>	<p>and enhance the learning outcomes of the academic programme, and how they contribute to increasing the graduate’s competitiveness in the labour market.</p>	<p>implementing institution of this programme is provided;</p> <ul style="list-style-type: none"> • A written confirmation from the higher education institution regarding the recognition of the learning outcomes achieved within the micro-credential course is provided. • A matrix of the micro-credential course learning outcomes in relation to the learning outcomes of the educational programme and the corresponding level descriptors of the NQF (National Qualifications Framework); • Here’s the English translation: Results of the interview with the head of the academic programme.
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1.6 Structure and Content of Micro-Credential

<p>The micro-credential course is compiled using the methodology of planning, elaboration and development of educational programmes of HEI. And, it complies with the mandatory and/or recommended fields defined by the European Approach for Micro-Credentials, as set out in the Council of Europe Document dated June 16, 2022, No. 2022/C 243/02. The structure of the course is</p>	<ul style="list-style-type: none"> • The micro-credential course syllabus includes: • Course objectives, learning outcomes, thematically structured content, assessment methods, and relevant and up-to-date educational resources; • Information on prerequisites for admission to the programme; 	<ul style="list-style-type: none"> • Methodology for planning, elaborating and enhancement of educational programmes; • Detailed syllabus; module(s) materials (educational resources). • Instructions for using the LMS platform for implementing the micro-credential course and a link to the e-learning course, if applicable
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<p>consistent and logical. The content and the structure ensure the achievement of the syllabus learning outcomes.</p>	<ul style="list-style-type: none"> • Information on course duration, study workload, and assessment periodicity; • Information regarding the recognition of learning outcomes achieved through the micro-credential within the framework of higher education programme(s); • Information on the body responsible for external quality assurance of the micro-credential; • Details on study workload, timelines, implementation location, language of instruction, and delivery formats; • Information on the fee for completing the micro-credential and on possibilities for credit recognition; • Instructions for using the LMS platform for implementing the micro-credential course and a link to the e-learning course, if applicable. 	<ul style="list-style-type: none"> • An Agreement and/or Memorandum of Understanding signed with the higher education institution (HEI) implementing the relevant academic programmes.
<p>2. Teaching Methodology and Organisation, Evaluation of the Adequacy of the Programme Mastering</p>		
<p>2.1 Micro-Credential Admission Preconditions</p>		
<p>Minimum mandatory requirements for admission to the micro-credential course are defined in accordance with the requirements established by the Georgian legislation.</p>	<ul style="list-style-type: none"> • Admission prerequisites for the micro-credential course are based on the requirements established by the Georgian legislation; the admission requirements are public and easy to understand; • A mechanism for the recognition of prior learning is in place; 	<ul style="list-style-type: none"> • Educational programme; • Website and other means of dissemination of information to ensure access to information about the program; • Description of the course admission prerequisites in the syllabus;

	<ul style="list-style-type: none"> • Admission prerequisites do not unjustifiably restrict the diversity of the audience. 	
<h2>2.2 Portability of Micro-Credential</h2>		
<p>The micro-credential course is described in accordance with the mandatory and/or recommended fields defined by the European approach to micro-credentials, as outlined in the Council of Europe’s document N 2022/C 243/02 of 16 June 2022. Through the relevant electronic platform, the achieved learning outcomes are digitally certified, ensuring the portability of qualifications; The micro-credential course is designed in such a way that it can be combined with another micro-credential and/or within an academic program; the recognition of learning outcomes is ensured.</p>	<ul style="list-style-type: none"> • Transparent procedures and agreements have been developed for granting the micro-credits. • There is an electronic and public registry of micro-credential courses; • At the national level, within higher education institutions that have the authority to grant recognition, there are mechanisms for recognising credits earned and learning outcomes achieved through a micro-credential course. 	<ul style="list-style-type: none"> • Agreements/protocols for the recognition of micro-credentials at the institutional level; • Entries for the registration of micro-credentials in the electronic registry of micro-credentials; • A matrix of the micro-credential course learning outcomes in relation to the learning outcomes of the educational programme and the corresponding level descriptors of the NQF (National Qualifications Framework); • An Agreement and/or Memorandum of Understanding signed with the higher education institution implementing the academic programme; a written confirmation from the higher education institution regarding the recognition of learning outcomes achieved within the micro-credential course is provided.
<h2>2.3 Form(s) of Micro-Credential Delivery and Electronic Platforms</h2>		
<p>Flexible forms of micro-credential delivery are ensured (face-to-face and/or hybrid</p>	<ul style="list-style-type: none"> • The forms used in teaching ensure the achievement of the learning outcomes envisaged by the micro-credential course 	<ul style="list-style-type: none"> • Description of the electronic learning management system (LMS) and the

<p>and/or online). Where necessary, platforms with user-oriented interfaces are provided, along with appropriate technological and pedagogical support.</p>	<p>and provide equal accessibility for all learners.</p> <ul style="list-style-type: none"> • In the case of electronic learning management system, appropriate technical support is provided. 	<p>conditions of technical support (if applicable);</p> <ul style="list-style-type: none"> • Instructions for using the electronic platform (if applicable); • Learner feedback on the platform and the electronic course.
<h3>2.4. Teaching and Learning Methods</h3>		
<p>The course is implemented by using learner-centered teaching and learning methods. The methods correspond to the level of instruction and the specifics of the field. The pedagogical approaches used (problem-based, project-based, active learning methods, etc.) correspond to the course objectives and ensure the achievement of learning outcomes.</p>	<ul style="list-style-type: none"> • The methods are diverse, aimed at ensuring active learner engagement, and are aligned with the learning outcomes; information about assessment methods is accessible to all learners; • The teaching and learning methods ensure active learner participation in the educational process, as well as interaction between personnel and learners, and among learners themselves. 	<ul style="list-style-type: none"> • Lecture plans; • Descriptions of activities; • Learner feedback and participation statistics.
<h3>2.5. Learner Evaluation</h3>		
<p>The assessment system is based on the principles of fairness and transparency and is relevant to the subject of assessment and compliant with legal requirements. Mechanisms for appeal and clarification are</p>	<ul style="list-style-type: none"> • Assessment criteria and procedures are clearly defined. • Systematic records of results and the resolution of appeals are in place. • Assessment components, methods and criteria are transparent, accessible and familiar for learners in advance; 	<ul style="list-style-type: none"> • Assessment policy document; • Records of assessment results; • Documents related to assessment appeals; reports of the external evaluator (if applicable).



<p>defined; involvement of an external examiner is provided, when necessary.</p>	<ul style="list-style-type: none"> • If necessary, HEI ensures learners' evaluation through electronic/distance methods, taking the specifics of a component and content into consideration; • Learners' feedback on the assessment is taken into account. 	
<h3>3. Application of Learner-Centered Approaches</h3>		
<h4>3.1 Learner Consulting and Support Services</h4>		
<p>Micro-credentials provide consultation and technical support to learners, as well as resources for employment opportunities when needed.</p> <p>Learners have an opportunity to experience a diverse learning process and receive relevant information and recommendations from the individuals involved in the programme.</p>	<ul style="list-style-type: none"> • Support services for learners are accessible, with timely responses to their needs; information provision and monitoring of assistance quality are also guaranteed. • Academic/administrative or other staff consult learners over the study process and also, various activities planned within the program. 	<ul style="list-style-type: none"> • List of listener services and rules for their provision; • Contact information of service providers; • Learners' feedback on the services received; • Statistics on the use of services by listeners.
<h3>4. Providing Teaching Resources</h3>		
<h4>4.1 Human Resources</h4>		
<p>Micro-credential course staff consists of qualified persons, who have necessary competences in order to help students to achieve the programme learning outcomes.</p>	<ul style="list-style-type: none"> • The qualifications and professional experience of the academic staff/instructors meet the programme requirements; a mechanism for the professional development (retraining) of academic staff is in place; 	<ul style="list-style-type: none"> • CVs of the academic staff; copies of documents certifying education and training; • Academic staff contracts; • Interview results.



	<ul style="list-style-type: none"> The qualification of the staff is evidenced by the knowledge, experience and competence required for the expected learning outcomes as provided for by the programme. 	
<h4>4.2 Material Resources</h4>		
<p>The institution implementing the course is equipped with appropriate physical and material resources necessary for delivering the microcredit course (laboratories, lecture spaces, computer labs, library holdings and digital educational resource collections) as well as the required digital infrastructure (Learning Management System/LMS, various electronic educational platforms, etc.)</p>	<ul style="list-style-type: none"> Resources are sufficient to meet the educational objectives and achieve learning outcomes. Technical and safety standards are observed in the use of material and technical resources; Resources are available to learners. 	<ul style="list-style-type: none"> List of material inventory; Technical documents and licenses (if applicable); Photo documentation; Terms of service for the LMS and other educational platforms.
<h4>4.5. Budget of Programme/Faculty/School and Programme Financial Sustainability</h4>		
<p>The financial resources allocated for the micro-credential course correspond to the program's needs.</p>	<ul style="list-style-type: none"> The budget is realistic and intended to maintain the quality of the program; An assessment of financial risks and strategies for their mitigation is in place. 	<ul style="list-style-type: none"> Sources of funding for the micro-credential course; Budget document; Financial reports; List of expenses; Memorandums of Understanding on financial support (if any). Interview results.
<h3>5. Teaching Quality Enhancement Opportunities</h3>		
<h4>5.1 Internal Quality Assessment</h4>		



<p>The implementing institution has clearly defined policies and procedures for internal quality assurance of the micro-credential, which include regular monitoring, evaluation, and improvement of the programme.</p> <p>Quality assurance is based on the involvement of stakeholders in the teaching and learning process (learners, employers, sectoral associations, etc.). Quality assurance is based on the active involvement of stakeholders and the feedback received from them.</p> <p>The institution has established a mechanism to monitor the achievement of the learning outcomes stipulated by the programme.</p> <p>Quality assurance includes the continuous development of educational and administrative staff.</p>	<ul style="list-style-type: none"> • The structure of the internal quality assurance and responsible personnel are defined; • The micro-credential undergoes a regular self-assessment cycle. • Quality assurance results are utilised for the improvement of micro-credential; • Feedback on micro-credentials is collected systematically and in a structured manner; • The collected data is regularly reflected in course modification; • The HEI utilises a transparent mechanism for analysing feedback and sharing the results. • Internal procedures for evaluating results are defined; • Internal and external moderation mechanisms are used; • The results are used to guide programme improvement; • There is a professional development plan for the staff including: <ul style="list-style-type: none"> • regular trainings/workshops; • Staff satisfaction and their professional development needs are regularly evaluated; 	<ul style="list-style-type: none"> • Internal regulations and policy documents; self-evaluation reports; meeting minutes; plans for amendments or improvements; • Reports of surveys conducted with learners and employers; examples of amendments implemented based on feedback; • Assessment policy and procedures; • Reports analysing assessment results; • Improvement plan based on the results; • Professional development policy for academic and administrative staff; • Schedule of trainings; • List of participants; • Feedback from academic and administrative staff; • Financial reports; • Assessment records of material and technical assets; • Risk management plans; • Audit findings; • Programme descriptions on the website; • Mechanisms to communicate with Learners and Partners; • Conclusion of a peer review (if applicable) and changes implemented as a result of the recommendations presented in the conclusion;
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<p>Internal quality processes ensure the financial and material sustainability of the micro-credential.</p> <p>Internal quality processes ensure the accessibility and transparency of information.</p>	<ul style="list-style-type: none"> • Mechanisms for internal control of the program’s financial and material resources are established; • The resources for micro-credentials are regularly evaluated; • A risk management system is in place; • Information about the program is publicly accessible; • Internal quality reports are published regularly. 	
<p>5.2 External Quality Assurance Assessment</p>		
<p>Obtaining the Right to Implement a Micro-credential – The right to implement a micro-credential is granted upon submission of an application and complete provision of the required documentation.</p> <p>The Center is authorised to carry out unscheduled monitoring based on an official request from an interested party (learner, employer, professional association, etc.) indicating violations by the micro-credential provider.</p> <p>The Center shall ensure the publicity and transparency of the decisions made.</p>	<ul style="list-style-type: none"> • The submitted documentation complies with the requirements set out in the standards for obtaining the right to implement a micro-credential; • The assessment process shall be completed within 60 working days. • The Higher Education Program Accreditation Council is obliged to make a reasoned decision regarding granting the right to implement a micro-credential, refusing the right to implement, or granting the right to implement subject to monitoring; • The Accreditation Council’s decision shall specify the exact timeframe for the implementation of the programme. 	<ul style="list-style-type: none"> • Official reports; • Minutes of meetings of the Council for Accreditation of Higher Education Programs; • Documents containing Accreditation Council decisions are published on the Center's website; • Protocols for reviewing complaints; description of the mechanism for appealing decisions.



	<ul style="list-style-type: none">• The micro-credential provider shall fully and strictly comply with the requirements defined by the procedure for obtaining the right to implement a micro-credential throughout the specified period.• The procedures for monitoring a micro-credential course are defined in a pre-approved regulation.• The monitoring process is based on quality standards and includes expert involvement.• The outcomes are utilised for the retention or extension of the right to offer micro-credential.• A formal complaint or referral with specific details of violations by the implementing institution can become the basis for ad-hoc monitoring of the micro-credential course.• The Center shall ensure unscheduled monitoring is carried out within 30 calendar days and ensures public disclosure of results.• Decisions are published on the Center's website. Decisions regarding programmes are reflected in the electronic registry of micro-credentials.• Stakeholders are provided with detailed information on monitoring results.	
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	<ul style="list-style-type: none">• Procedures for reviewing complaints and appealing decisions made by the Accreditation Council are defined	
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A qualification must meet two main requirements to be included in the National Qualifications Framework:

- a) The qualification content must be clearly described through learning outcomes to ensure transparency and assessment of acquired knowledge, skills, and competencies.
- b) The qualification must successfully complete quality assurance procedures in line with national standards.

Since the definition and format of micro-credentials encompass both of the aforementioned requirements—specifically, they are based on learning outcomes and are subject to external quality assurance mechanisms—this provides the necessary substantive and legal basis to integrate them into the National Qualifications Framework. Such integration is essential to ensure their recognition and portability.

XIV. METHODOLOGY FOR DETERMINING THE ALIGNMENT OF MICRO - CREDENTIALS LEARNING OUTCOMES WITH LEVEL 6 AND LEVEL 7 DESCRIPTORS OF THE NATIONAL QUALIFICATIONS FRAMEWORK

Upon completion of micro-credentials aligned with the relevant level of the National Qualifications Framework (NQF), graduates are awarded a Level 6/Level 7 certificate confirming the completion of the micro-credentials course.

Determining the alignment of learning outcomes with the NQF level descriptors currently remains one of the key challenges. At the international level, there is no common approach or a harmonised methodology. However, the experience of various countries and approaches highlighted in international discussions indicate several core principles that should guide the determination of the alignment of the learning outcomes of micro-credential with the NQF level.

First and foremost is the learning – outcomes - based approach. Regardless of the volume or duration of the micro-credentials, its evaluation is based not on the number of contact hours, but on the content and depth of the described learning outcomes. Alignment with the NQF level descriptors is established by comparing these outcomes.

In this process, the principle of ‘best alignment’ plays a crucial role. In practice, the learning outcomes of micro-credentials may reflect some characteristics of a lower NQF level (but not of a higher level); however, alignment is determined by the dominant learning outcomes — that is, where the majority of outcomes and their complexity most closely correspond to the descriptors of a specific NQF level.

Although micro-credentials are of limited volume and therefore may not encompass the full spectrum of descriptors associated with a complete qualification, they must necessarily include components of all three descriptors (knowledge and understanding, skills, responsibility and autonomy).

Alignment may be established through comparison with both the relevant NQF level descriptors and the learning outcomes of higher education programmes at the same level within the specific field of study.

Transparency and well - reasoned justification are essential parts of this process. All decisions regarding the alignment of micro- credentials with the NQF level must be documented with clear justification to ensure reliability as well as national and international recognition.

XV. DEVELOPMENT OF MICRO-CREDENTIALS COURSE

The Quality Assurance Agency for Higher Education (QAA)⁸ of the United Kingdom provides a set of steps for developing Micro- credentials. Based on this guidance, a modified version has been designed, adapted to the requirements of Georgia’s higher education system and labour market.

⁸ Quality Assurance Agency for Higher Education (QAA) Guide to Micro-credential Design: Modular learning by design and not default https://www.qaa.ac.uk/docs/qaa/members/guide-to-micro-credential-design.pdf?sfvrsn=699aac81_12

Stages of Micro-Credentials Development:

Step 1:

- Establishing the vision and significance of micro-credentials;
- Defining the purpose of micro-credentials in collaboration with labour market representatives;
- Identifying target groups for micro-credentials in cooperation with employers;
- Identifying employers or professional and/or regulatory bodies recognising Micro-credentials.

Step 2:

- Determining the level of micro- credentials (in accordance with the National and European Qualifications Frameworks);
- Defining the volume of micro-credentials in ECTS credits (typically from 1 to 30 credits);
- Determining the mode of delivery (face- to- face and/or online and/or hybrid).

Step 3:

- Formulating learning outcomes in collaboration with employers;
- Clearly highlighting the skills component within the learning outcomes.

Step 4:

- Designing teaching and learning strategies (using a collaboration-based approach with employers);
- Designing assessment and feedback strategies with employer involvement (where feasible, work - based assessment is recommended).

Step 5:

- Developing course content in collaboration with employers;

- Ensuring opportunities for reflection and feedback.

Step 6:

- Developing formative and summative assessment activities in collaboration with employers.

Step 7:

- Preparing a draft syllabus.

Step 8:

- Identifying educational resources and ensuring their accessibility.

Step 9:

- Ensuring approval and recognition by professional, normative, and regulatory bodies.

Below is a sample: micro-credentials syllabus, developed in line with the Council of Europe Recommendation on a European approach to micro-credentials and informed by international best practices (United Kingdom, Ireland, Italy, Australia, New Zealand):

Sample Micro-credentials Syllabus	
Title of Micro- credentials course in Georgian and English languages	AI for Enhancing Research Skills in Higher Education (ხელოვნური ინტელექტის გამოყენება უმაღლეს განათლებაში კვლევითი უნარების განვითარებისთვის)
Issuing country(ies)/region(s):	Georgia, Tbilisi
Issuing body/bodies:	Institution/Institutions
Issue date	20.10.2025

<p>Learning outcomes</p>	<p>1. Knowledge and understanding</p> <ul style="list-style-type: none">• <u>Describes</u> the main artificial intelligence (AI) tools (e.g., ChatGPT, Grok, Google Scholar AI) and their role in enhancing research processes in higher education.• <u>Explains</u> ethical challenges of AI, such as data privacy and plagiarism, in the context of higher education.• <u>Summarises</u> the benefits and limitations of AI for developing research skills, including data analysis and literature search.• <u>Defines</u> key terms and concepts — such as machine learning and natural language processing—used in research projects. <p>2. Skills</p> <ul style="list-style-type: none">• <u>Uses</u> AI tools (e.g., Semantic Scholar, Connected Papers, Research Rabbit, Google Dataset Search, etc.) for literature review and data visualisation in higher education research projects;• <u>Develops</u> digital literacy skills through exploration and research on the use of AI tools.• <u>Critically analyses</u> the value of AI in research and in the development of educational innovations;• <u>Analyses</u> AI-generated outputs to evaluate the accuracy of research data.• <u>Designs</u> an AI- based research plan for a higher education research project, integrating principles of ethics and academic integrity. <p>3. Responsibility and Autonomy</p> <ul style="list-style-type: none">• <u>Manages</u> their own research process using AI, making independent decisions regarding ethical issues in higher education.• <u>Reflects</u> on the risks and benefits of AI use, ensuring responsible application in research skills development.• <u>Develops</u> an ethical framework for the use of AI in research, <u>assumes</u> responsibility for the reliability of results, and <u>works</u> autonomously within a team environment.
<p>Workload Required to Achieve the Learning Outcomes</p>	<ul style="list-style-type: none">• 7 ECTS credits 1 ECTS = 25 hours• Contact: 50 hours (synchronous online webinars)

	<ul style="list-style-type: none"> • Participation in electronic activities: 15 hours (discussion forums; practical tasks using AI platforms); • Asynchronous content and reading: 100 hours (video materials and readings on AI ethics and research tools); • consultations on developing the research project - 6 hours; • Assessment: 4 hours (project presentation and reflection).
<p>Level of Learning Experience of the Micro- credentials (with reference to National and European Qualifications Frameworks, where applicable: EQF, QF-EHEA;</p>	<ul style="list-style-type: none"> • National Qualifications Framework – Level 7; • EQF – Level 7; • QF-EHEA – Second Cycle.
<p>Types of Assessment</p>	<ul style="list-style-type: none"> • Formative: Written reports; Quizzes; Reflection; Participation in discussions; • Summative: Research project; Project presentation; Written examination.
<p>Mode of Participation in Learning Activities</p>	<p>Fully online (asynchronous + synchronous), delivered via the Moodle LMS platform.</p>
<p>Type of Quality Assurance Applied to the Micro-credentials</p>	<p>Internal quality assurance: see the institution’s Internal Quality Assurance Regulations;</p> <p>External quality assurance: authorised body granting the right to deliver: LEPL - National Center for Educational Quality Enhancement (NCEQE)</p>
<p>Admission/Entry Requirements for Micro-credentials</p>	<ul style="list-style-type: none"> • Full general education or an equivalent qualification; Document confirming English language proficiency at no lower than B2 level; • Transcript confirming completion of the field- specific core compulsory courses of a Master’s degree programme by the learner.



Stackability	<p>This Micro - credential may be combined with Micro- credentials in Quantitative and Qualitative Research Methods and with Micro- credentials in Academic Work. Through the combination of these courses, it is possible to recognise up to 25 ECTS within the research component of relevant Master’s degree programmes in Higher Education Administration, Education Management, and Education Policy at the respective university.</p>
Recognition Opportunities	<p>On the basis of an agreement, recognition may also be granted within the Master’s degree programmes in Higher Education Administration, Education Management, and Education Policy of the relevant university by the NNLE Association for Higher Education Research.</p>
Language of Delivery	<p>Georgian (<i>Note: Part of the reading materials is available in English.</i>)</p>
Contact Person(s) Information and Position(s)	<p>Name(s), Surname(s), Position</p>
Contact E-mail Address(es)	<p>E-mail address(es)</p>
Target Audience	<p>Master’s students enrolled in education programmes who are interested in educational research; Representatives of associations and non- governmental organisations involved in research in the field of education; Representatives of sectoral ministries and their sub - agencies working in the areas of academic education and research.</p>
Rationale for Micro-credentials Course	<ul style="list-style-type: none"> • The development of Micro- credentials focused on the use of artificial intelligence is linked to several challenges present in the modern higher education system, which are clearly reflected in the knowledge, skills, and competencies of both graduates and current professionals. • Firstly, the lack of research skills represents one of the most significant issues. Learners and employees often lack sufficient knowledge of contemporary digital tools, which limits their capacity for data processing and analytical work. This micro- credentials is designed specifically to address this gap by providing practical experience in the use of AI- based platforms such as Semantic Scholar, Research Rabbit, Google Dataset Search, among others.

- Secondly, issues related to ethics and academic integrity — including plagiarism, data confidentiality, and critical evaluation of reliability — often remain inadequately understood.

The course aims to raise awareness in these areas, ensuring that participants not only acquire technical proficiency with AI tools, but also fully understand the principles of their responsible and ethical use.

- Thirdly, a low level of digital literacy creates a major barrier for both research and professional activities.
- This micro-credentials support the systematic development of digital literacy skills, enabling participants to acquire universal, transferable competencies and enhance their competitiveness in the labour market.

Gaps Addressed by the Micro-credentials:

- Eliminating qualification deficits in the research component – Learners currently lack sufficient and structured knowledge of modern research technologies.
- Promoting innovative approaches – Traditional methodologies continue to dominate higher education and research, whereas the use of artificial intelligence enables faster, more effective, and large-scale data analysis.
- Enhancing compatibility with international standards – Mastery of contemporary research skills is essential for participation in the global academic environment, where AI is already an integrated practice.

Accordingly, the development of micro-credentials focused on the use of artificial intelligence for research competence development not only responds to current educational challenges but also ensures the advancement of knowledge, skills, and competencies aligned with labour market needs. This is evidenced by the fact that the course is being implemented at the request of the NNLE Association for Higher Education Research. The course creates a sustainable foundation for both



	<p>individual academic and professional growth, as well as for the qualitative transformation of the education system.</p>
<p>Justification for the Selection of the Target Audience</p>	<p>The definition of the above- mentioned target audience in Micro- credentials syllabus is advisable for several reasons. This group ensures the relevance of Micro- credentials, high levels of engagement, practical applicability, and may further enhance its stackability and combinability toward broader qualification pathways.</p> <p>Since Micro- credentials focuses on the use of Artificial Intelligence (AI) in higher education for the development of research skills at Level 7 of the National Qualifications Framework, the following target groups are identified:</p> <ol style="list-style-type: none"> 1. Students of Master’s Educational Programmes Interested in Educational Research. <p>Rationale: This group represents the direct beneficiaries of micro-credentials content, as students in education- related Master’s programmes frequently undertake research projects in higher education, where the integration of AI (e.g., data analysis, literature search) is critical. Defining this target audience ensures proportionality of learning outcomes, meaning that micro-credentials can be applied as a modular component within Master’s courses. This increases participation, as learners acquire transferable skills (e.g., digital literacy, critical analysis) that directly support them in the development of research projects.</p> <ol style="list-style-type: none"> 2. Representatives of Associations Conducting Research in the Field of Education. <p>Rationale: This professional group (e.g., researchers of academic associations) regularly conducts studies on educational reforms, where the use of AI (e.g., ethical considerations, data visualization) is highly relevant. Target audience should be selected in collaboration with the industry, which in this case is ensured through the involvement of relevant associations. This guarantees both content relevance and practical applicability. This group has strong motivation to achieve the intended learning outcomes of Micro- credentials (e.g., AI-based research</p>

design), as they will be able to apply the acquired knowledge and skills directly in their professional research activities, thereby enhancing the Micro-credential's impact on educational policy.

3. Representatives of Non-Governmental Organisations

Rationale: NGOs working on educational programmes (e.g., research projects, reforms) frequently replace traditional research and analytical methods with AI tools. Accordingly, they require skills to address both ethical and practical challenges related to artificial intelligence.

Defining this target audience ensures flexibility and supports the application of Micro-credentials within non-formal education. The involvement of the non-governmental sector is particularly important, as it enables the use of learning outcomes (e.g., reflection and feedback) in community-based projects, thereby enhancing social impact and contributing to stackability toward broader qualifications.

4. Representatives of Sectoral Ministries and Subordinate Agencies Working in Academic Education and Research

Rationale: These bodies are responsible for developing education policy within their respective domains, which requires strengthened academic and research competencies. Their involvement is justified because the implementation of Micro-credentials in this direction supports capacity building for public-sector employees and the improvement of their research skills. It is noteworthy that recognising state bodies and agencies as accrediting/employing organisations strengthens the legitimacy of Micro-credentials and increases its international recognition potential. This group is motivated to participate, as they can apply the acquired knowledge in policy evaluation, contributing to Micro-credential's national-level impact and supporting the further development of prior learning recognition procedures.

XVI. RECOGNITION OF MICRO-CREDENTIALS

Considering modern approaches to lifelong learning and employment, the recognition of Micro-credentials is becoming increasingly important. In this context, flexibility, transparency, and quality of teaching and learning play a decisive role.

Analysis of recommendations and guidelines developed by various international organisations and platforms enables us to identify general principles that may serve as a foundation for micro-credentials recognition policies.

In the European Union’s definition of micro-credentials, one of the key elements is “portability,” which implies that certificate holders must be able to store their credentials on a platform of their choice and share it with a relevant entity, which should be able to interpret the credential’s content and verify its authenticity (Council of Europe, 2022).

First and foremost, the value of micro-credentials depends on the clarity of the learning outcomes. They must reflect the knowledge, skills, and competences acquired and be confirmed through fair and reliable assessment procedures. Clear formulation of learning outcomes ensures alignment of micro-credentials with the appropriate level of the National Qualifications Framework, and facilitates comparability with other programmes.

It is fundamentally important to ensure full accessibility of information about micro-credentials. Micro-credentials must be accompanied by essential elements — learning outcomes, workload, level within national and the European qualifications frameworks, form of assessment, date of issuance, issuing institution, and other relevant information. This provides a basis for understanding the content and context of micro-credentials and for its recognition at both national and international levels.

Quality assurance plays a decisive role in the recognition process. Internal and external evaluation mechanisms must be designed to ensure the reliability and legitimacy of micro-credentials. At the same time, quality assurance procedures should be proportionate and flexible so as not to become an

excessive bureaucratic burden. A necessary prerequisite for developing recognition mechanisms is the establishment and implementation of internal and external systemic evaluation and quality assurance processes that guarantee the credibility of Micro- credentials and their alignment with national and international standards.

It is noteworthy that the qualification obtained within micro-credentials can be confirmed through a digital certificate or a badge.

16.1 On the Relationship between Micro-Credentials Certificates and Badges

Generally, micro-credentials certificates serve as documentation confirming short- term learning, demonstrating the extent to which an individual has acquired specific knowledge, skills, or competences. A badge may either be a digital representation of an already awarded certificate (e.g., a badge issued following the completion of an online course for which a certificate has been granted) or a standalone digital credential that recognises skills, achievements, or learning outcomes.

Both types of badges must include a visual element (i.e., a graphical representation of the credential) and metadata that are uniquely linked to the individual's skills. The metadata of a digital badge also includes information regarding the issuing institution, the holder (learner), and the publisher (the platform where the badge is stored). Only a badge that constitutes the original credential may be considered a micro-credential; other types of badges may merely serve as a digital representation of an already awarded certificate, offering only a visual depiction of the original credential.

One of the most essential principles is the portability and interoperability of micro-credentials. They should be usable across different systems, institutions, and countries, including through digital formats. This enhances the visibility of micro-credentials, ensures the security of information about them, and increases their value both for employers and educational institutions.

In the recognition process, the principle of best fit is crucial. This means that the intended learning outcomes of micro-credentials must be compared with the appropriate level of qualification within

national or international qualifications frameworks, and alignment should be determined with the closest equivalent, allowing for flexible interpretation where necessary⁹.

<p>Micro-credentials</p> <p>Short-term certificates that confirm whether an individual has acquired specific knowledge, skills, or competences.</p>	<p>Badges</p> <p>These may serve either as a digital representation of an already awarded certificate or as the original digital credential that certifies skills, achievements, or learning outcomes.</p>

Micro-credentials should also be integrated within broader educational and qualifications systems. They should not exist in isolation; rather, they must be stackable, transferable, and accumulable so that they can contribute toward a more comprehensive qualification. This strengthens their practical value in both educational and employment contexts.

Furthermore, the credibility of micro-credentials depends on verifiable certification and validation mechanisms. Employers or other institutions must be able to confirm its authenticity, whether through a physical document or a digital format.

Ultimately, the recognition system for Micro-credentials should be innovative, flexible, and development-oriented. As Micro-credentials represent a new form of learning, the recognition framework must be capable of integrating emerging approaches, technologies, and practices.

Considering the above principles, the recognition of Micro-credentials can become a coherent, transparent, and effective process that simultaneously responds to the needs of both the education system and the labour market.

⁹ The University of Texas System. 2023. Integrating Microcredentials into Undergraduate Experiences. <https://www.utsystem.edu/sites/default/files/sites/microcredentials/integrating-microcredentials-web.pdf>

The primary reference for the information that must be provided about Micro- credentials — particularly for recognition purposes — is the Council Recommendation of 16 June 2022 (No. 2022/C 243/02) on a European approach to Micro- credentials. It specifies the following mandatory standard elements:

- Identification of the learner/listener;
- Title of micro-credentials;
- Name of the delivering institution(s);
- Country/countries or region(s);
- Name of the awarding institution(s);
- Date of award;
- Learning outcomes;
- Estimated workload required to achieve the learning outcomes (in ECTS credits where possible);
- Level (and cycle, where relevant) of Micro- credentials (EQF, QF-EHEA), where applicable;
- Type of assessment;
- Mode of participation in the learning process;
- Type of quality assurance applied to support Micro- credentials.

The Italian Information Centre on Academic Mobility and Equivalence (CIMEA), in its guide “Micro - Credentials for Higher Education Institutions – Peer - Supported Approaches in the European Higher Education Area”¹⁰, notes that there is a list of non- mandatory elements, such as entry requirements for Micro- credentials and its integration/stackability potential (i.e., whether Micro - Credentials is standalone, part of a larger programme, or can be accumulated with other micro-credentials).

Although these elements are not considered mandatory, it is important to provide information on the extent and framework within which micro-credentials can be recognised by the same institution or by another institution/provider under an agreement or partnership, how many credits can be recognised, and in which educational programme.

This information can be included directly on the certificate, in supplementary documentation attached to micro- credentials, or on the issuing institution’s website.

¹⁰ Micro-Credentials for higher education institutions approaches developed in the EHEA using peer support.2024.
https://www.cimea.it/Upload/Documenti/Micro-credentials%20in%20HE_1.pdf

Regardless of the format in which the information is provided, it should be transparent, reliable, and easily accessible to learners and the wider public. It should also take into account a historical perspective, since a significant period of time may elapse between the attainment of a qualification and its recognition.

Evidence shows that the presence of standardised descriptions for micro-credentials in online portals and other information systems is crucial, as it enables learners/participants to make structured comparisons of programs and facilitates the recognition process between academic institutions and education providers¹¹ (OECD, 2023).

If all standard elements are properly presented, micro-credentials can be assessed in accordance with the principles of the Lisbon Recognition Convention (LRC), an international convention governing the recognition of qualifications within the European region (European Council and UNESCO, 1997).

If these elements are not transparently documented within micro-credentials, recognition is still possible through the Recognition of Prior Learning (RPL) procedure, that is, by validating learning outcomes, whether they originate from formal education or non-formal learning acquired prior to the validation requirement (ECTS Users' Guide, 2015).

To ensure transparency and completeness of information, and consequently the appropriate approach to recognition, the project “E-valuate” was implemented under the coordination of the Netherlands' National Agency for International Education and Academic Recognition (NUFFIC). The project aimed to improve the academic recognition of online learning, develop practices for recognizing achievements and certifications from online courses (e.g., MOOCs and SPOCs), and enable higher education institutions to assess these fairly and consistently. Within the project, a methodology was developed¹² that identified seven criteria for verifying the completeness of information:

1. Course quality;
2. Certificate verification;
3. Course level;
4. Learning outcomes;

¹¹ OECD (2023). Public policies for effective micro-credential learning, OECD Education Policy Perspectives. No. 85, OECD Publishing, Paris. <https://doi.org/10.1787/a41f148b-en>.

¹² The Rise and Recognition of Micro-credentials Stacking Modules and the Future of the Qualification. 2022. <https://www.nuffic.nl/sites/default/files/2022-03/The%20rise%20and%20recognition%20of%20micro-credentials.pdf>

5. Workload;
6. Methods of assessing learning outcomes;
Identification of the teacher/learner.

16.2 Digital Certification and the Use of Blockchain

Digital certificates can enhance portability, transparency of information, and verification of authenticity, which in turn facilitates their recognition process¹³ (MICROBOL, 2022). Digital tools support higher education institutions throughout the entire process of managing and issuing Micro-credentials, as part of a broader digitalization strategy, addressing both internal and external institutional needs .

The modern educational environment increasingly relies on digital technologies for recording and recognizing learning outcomes. In this context, mechanisms for digital certification and blockchain-based systems are particularly important, as they create a reliable, transparent, and flexible environment for the recognition of Micro-credentials.

Digital certification enables the official confirmation of learning outcomes in a format that is protected against falsification and unauthorized modification. The European Digital Credentials for Learning (EDC) platform, developed by the European Union, serves precisely this purpose, providing the production, storage, and sharing of certificates in a secure and legally reliable format. At the same time, the European Learning Model (ELM) defines how information should be structured within a certificate: where and when Micro-credentials was awarded, its workload and level characteristics, how the learning was assessed, and which institution issued the certificate. This standardization ensures the exchangeability of digital Micro-credentials certificates across different countries and systems.

The integration of blockchain technologies further strengthens this process. Blockchain-based certificates are stored in a decentralized network, which prevents unauthorized data alteration and increases trust among both employers and educational institutions. Moreover, blockchain simplifies

¹³ MICROBOL (2022). Micro-credentials linked to the Bologna Key Commitments. Common Framework for Micro-credentials in the EHEA. https://microcredentials.eu/wp-content/uploads/sites/20/2022/03/Micro-credentials_Framework_final-1.pdf



the validation process: an employer can verify within seconds whether a candidate has actually been awarded a specific Micro- credentials, without requiring additional documentation.

Blockchain can be used not only to ensure the authenticity of certificates but also to support the integration of lifelong learning and Open Educational Resources (OER), creating a more flexible and open learning model.

Thus, the implementation of digital certification and blockchain makes Micro- credentials recognition a faster, more transparent, and reliable process. It ensures the portability of Micro- credentials — certificates can be easily shared and recognized across different countries, education systems, and labor markets. Additionally, these technologies reduce bureaucratic burdens and enhance trust among all stakeholders.

At the same time, higher education institutions must ensure that their use of digital tools aligns with European and international standards, including principles of confidentiality and data protection. Interoperability is a fundamental principle that enables the effective and reliable exchange of digital certificates between institutions, organizations, and jurisdictions.