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Strengthening the International Dimension of Universities in South-East Asia through the Development of Micro-credentials and Their Recognition

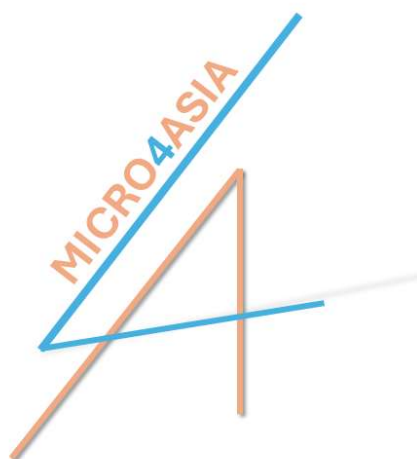
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Authors	Nebojša Stojčić, Iraj Hashi (University of Dubrovnik)
Internal reviewers	Mario de Martino (Institut de Haute Formation aux Politiques Communautaires), Tung Dao Thanh (National Economics University)
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University of Dubrovnik – UNIDU

The University of Dubrovnik is the lead beneficiary of WP2 and is responsible for coordinating the preparation, consolidation and finalisation of D2.2 – *Capacity Building Material for Teaching*.

Authors

Name	Institution	Contribution
Nebojša Stojčić, Iraj Hashi	University of Dubrovnik	Authors

Contributors

Institution	Contribution
Masaryk University	European standards, learning outcomes, recognition
University of Siena	Teaching methodology, assessment, quality assurance
Institut de Haute Formation aux Politiques Communautaires	Policy, dissemination
University of Economics Ho Chi Minh City	Examples and feedback from developed micro-credentials
Banking University Ho Chi Minh City	Examples and feedback from developed micro-credentials
National Economics University	WP2 co-lead contribution, examples and feedback
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DOCUMENT STATUS

This document constitutes Deliverable D2.2 of the MICRO4ASIA project. It provides capacity-building content and practical teaching materials supporting academic and administrative staff in the design, delivery, assessment and quality assurance of micro-credentials. The document is intended primarily for staff of partner higher education institutions in Vietnam and Laos. It may also be used by other higher education institutions, lifelong learning providers, quality assurance bodies and stakeholders interested in the development of flexible, short-form learning provisions.

The materials presented in this deliverable are informed by:



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- the MICRO4ASIA Capacity Gap Analysis;
- the MICRO4ASIA Capacity Building Plan;
- European principles and standards concerning micro-credentials;
- experience and regulatory practices of European consortium partners;
- micro-credential syllabi developed by partner universities in Vietnam and Laos;
- material presented and discussed in WP2 workshops (online and in person) led by UNIDU
- feedback obtained through MICRO4ASIA workshops, training activities and peer-review processes.

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Executive Summary

Deliverable D2.2, *Capacity Building Material for Teaching*, has been developed within Work Package 2 of the MICRO4ASIA project to support the systematic design, delivery, assessment and continuous improvement of micro-credentials in partner higher education institutions in Vietnam and Laos. It translates the Capacity Gap Analysis and Capacity Building Plan into a practical set of teaching materials, guidelines, templates and examples for direct institutional use. The analysis confirmed that partner universities already offer numerous short courses and professional programmes responding to the needs of professionals, public-sector employees, businesses and communities. However, provision is often fragmented, dependent on individual departments, temporary projects or short-term initiatives, and weakly connected to institutional lifelong learning strategies. Further challenges include inconsistent assessment and certification, limited links with formal credit and recognition systems, underdeveloped digital credentialing infrastructure and insufficiently formalised involvement of employers and other external stakeholders in programme design, delivery and evaluation.

D2.2 addresses these challenges by strengthening institutional and staff capacity for micro-credential design and delivery; improving competences in outcomes-based education, digital delivery and assessment; integrating micro-credentials into institutional strategies and quality assurance systems; and promoting alignment with national qualifications frameworks and relevant European standards. Its primary users are academic staff involved in course design, teaching and assessment, together with administrative personnel, quality assurance units, lifelong learning offices, digital learning specialists and university leaders responsible for approval, recognition and strategic integration. The deliverable follows the principal stages of micro-credential development, from defining the concept, target groups and labour market needs to formulating learning outcomes, structuring modular content, estimating workload and credits, selecting teaching methods, designing assessment, and addressing quality assurance, institutional approval, recognition, portability and documentation.

The material can be used as a complete staff-development programme or as a modular resource for face-to-face workshops, online sessions, blended training, self-directed study, mentoring, peer review and institutional planning. It supports the development of at least 36 micro-credentials in fields reflecting partner strengths and labour market priorities, while allowing each university to adapt content, workload, delivery and assessment to its national and institutional context. Course teams can use the tools to prepare, review, deliver and revise programmes, while quality assurance bodies can assess coherence, feasibility, relevance and alignment. The University of Dubrovnik model is included as an adaptable example of structured accreditation, administrative review, quality evaluation and institutional approval. D2.2 also provides the foundation for D2.3, which will consolidate tested materials, partner experience, peer-review findings, selected syllabi and validated tools into a transferable toolkit supporting wider implementation, lifelong learning and internationalisation in Vietnam and Laos.

Part I — Introduction and Training Framework

1. Introduction to MICRO4ASIA and WP2

MICRO4ASIA – Strengthening the International Dimension of Universities in South-East Asia through the Development of Micro-credentials and Their Recognition – is an Erasmus+ Capacity Building in Higher Education project supporting the modernisation and internationalisation of universities in Vietnam and Laos. It promotes a shared approach to the design, quality assurance and recognition of micro-credentials, while expanding access to flexible, labour-market-relevant learning. Its three objectives are to adapt European experience to national contexts, facilitate regional and international mobility through a common recognition mechanism (CRM)¹, and strengthen cooperation between universities, employers and other stakeholders to reduce skills mismatches and support sustainable growth. Work Package 2, led by the University of Dubrovnik and co-led by the National Economics University of Vietnam, provides the methodological and pedagogical foundation by identifying capacity gaps, developing and validating training, and consolidating materials and lessons learned. These resources support partner institutions and feed into the MICRO4ASIA Micro-credentials Tool-Kit and digital open educational repository.

2. Purpose, Scope and Users of D2.2

Deliverable D2.2, *Capacity Building Material for Teaching*, provides the core educational content and practical resources developed under Work Package 2. Its purpose is to guide university staff from an initial understanding of micro-credentials toward the design, delivery, assessment, quality assurance and revision of complete programmes. The material addresses the full development cycle, including learner profiling, labour market alignment, formulation of measurable learning outcomes, modular curriculum design, workload and credit allocation, selection of teaching and learning methods, assessment planning, scoring, institutional approval, recognition, portability and documentation of achievement. Conceptual explanations are combined with practical examples, model templates, checklists, worksheets, assessment tools and guided training activities. Depending on institutional needs and participants' prior experience, D2.2 can be used either as a complete capacity-building programme or as a modular reference resource supporting course development, peer review, mentoring, quality assurance and the preparation of individual micro-credentials for implementation.

The primary users are academic staff responsible for defining learning outcomes, structuring content, selecting teaching methods, designing assessment and monitoring learner progress. Administrative staff are equally important because they support registration, programme coordination, documentation, reporting, quality monitoring and communication between academic units and institutional services. The material is also intended for university leaders, quality assurance bodies, academic committees, lifelong learning offices, information technology and digital learning teams, video-production staff, external reviewers, policymakers and national quality assurance authorities. These groups contribute different but complementary forms of

¹ CRM is the subject of WP4 of the Project; for detailed description of CRM, see Del 4.2 of the Project.

expertise. University leadership ensures that micro-credentials are embedded in institutional strategy, governance and budgeting, while digital and technical staff support accessible online and blended delivery. Quality assurance units and academic bodies oversee coherence, standards and approval, and national or sectoral actors help shape recognition and policy frameworks. D2.2 therefore combines a strong teaching focus with coordinated academic, administrative, technological and strategic support.

3. Key Findings of the Capacity Gap Analysis

The Capacity Gap Analysis examined current short-course and non-degree learning practices in five participating higher education institutions in Vietnam and Laos. Its findings were then used to inform a capacity-building plan covering the six Southeast Asian partner universities participating in the project. The analysis confirms that the partner institutions possess a substantial base of experience. They already provide executive education, professional certificates, technical training and other short programmes for professionals, civil servants, businesses and local communities. Demand for reskilling and upskilling is evident across the participating institutions. The main challenge concerns the transition from dispersed short-course provision toward a coherent micro-credential system. The following findings directly informed the selection of the D2.2 training modules.

Finding from the Gap Analysis	Implication for D2.2
Short programmes are often developed on an ad hoc basis and are weakly integrated into institutional lifelong learning strategies.	D2.2 includes foundational guidance on micro-credentials, institutional integration and strategic positioning.
Terminology and understanding of micro-credentials are inconsistent across institutions.	A dedicated introductory session establishes common definitions, characteristics and principles.
Employer and stakeholder involvement exists, but is frequently informal and concentrated in a limited number of institutions.	A session on target groups, labour market alignment and stakeholder engagement supports more systematic consultation and co-design.
Assessment and certification practices exist, although links to formal credit and qualification systems remain limited.	Sessions on learning outcomes, assessment, scoring, workload and credit allocation provide a common design framework.
Digital systems for recording, verifying and communicating non-degree learning are underdeveloped.	Digital delivery, digital credentialing and learner documentation are integrated into the training content.
Institutional quality assurance procedures for micro-credentials are incomplete or absent.	A dedicated quality assurance session addresses approval, review, monitoring, learner feedback and continuous improvement.
Recognition and portability remain limited within and between institutions.	A recognition session introduces qualification frameworks, credit systems, documentation and portability principles.



The analysis showed that only some partner institutions connect short programmes with lifelong learning strategies. In several cases, courses are delivered without dedicated quality assurance procedures or a formal relationship with degree-based pathways, limiting standardisation, scalability and learner progression. Cooperation with employers and public institutions is strongest where universities already provide professional or corporate training, yet it often responds to immediate needs and is rarely supported by formal arrangements for joint curriculum development, review or evaluation. Assessment and certification practices are present, including examinations, presentations and project-based work, but links with academic credit, national qualifications frameworks and transferable learner records remain weak. Digital badges, learning passports and comparable systems for verifying and presenting achievements are largely absent. Institutions therefore identified priority needs in curriculum design, quality assurance, digital pedagogy, assessment, digital certification, policy frameworks and international practice. These findings explain the practical orientation of D2.2 and its emphasis on concepts, repeatable procedures and usable tools.

4. Capacity-building Objectives and Expected Competences

The Capacity Building Plan defines four interrelated objectives.

Objective 1: Develop institutional and human capacity for micro-credential design and delivery

Objective 2: Enhance pedagogical competence

Objective 3: Support institutional strategies and quality assurance

Objective 4: Promote alignment with qualification frameworks and European principles

Upon completing the capacity-building programme, participants should be able to:

1. explain the purpose, characteristics and potential uses of micro-credentials;
2. distinguish micro-credentials from other forms of short-course and non-degree provision;
3. identify relevant learner groups and analyse labour market and stakeholder needs;
4. formulate clear, measurable and assessable learning outcomes;
5. organise content into coherent modular learning units;
6. estimate learner workload and apply an appropriate credit allocation approach;
7. select teaching methods suited to short, flexible, online or blended learning formats;
8. design assessment methods aligned with intended learning outcomes;
9. develop transparent scoring criteria and assessment rubrics;
10. prepare a complete micro-credential syllabus using a common structure;



11. apply quality assurance criteria during course design, approval and delivery;
12. use learner and stakeholder feedback to revise and improve programmes;
13. document learning achievements in a transparent and verifiable form;
14. contribute to institutional procedures for recognition, governance and sustainability;
15. work collaboratively with colleagues, external stakeholders and international partners during course development and review.

5. Training Methodology and Guidance on Using the Materials

The D2.2 methodology is based on progressive, practice-oriented and collaborative learning. Participants move from a shared understanding of micro-credentials and relevant policy frameworks to the practical design of complete course proposals. The sequence begins with concepts, purpose and standards, then examines learner profiles, labour market needs and institutional conditions before progressing to learning outcomes, modular structure, workload, teaching methods and assessment. Participants apply these elements to real proposals connected with their own disciplines and institutional priorities, ensuring that the training produces immediately usable results. The Capacity Building Plan combines self-paced materials, online workshops, live interactive sessions, face-to-face training, mentoring and peer learning, allowing the materials to be used as a complete programme, individual workshop modules, self-study resources or guidance for syllabus development. Examples from economics, banking, finance, information technology, green skills and related fields demonstrate how common principles can be adapted across disciplines while retaining academic coherence and practical relevance.

Peer review, revision and institutional reflection form the second part of the methodology. Participants evaluate proposals using common templates and quality criteria, focusing on learning outcomes, alignment between teaching and assessment, workload, modular coherence, evidence of demand, admission requirements and quality assurance. Feedback should be specific, evidence-based and directed toward practical improvement. The University of Dubrovnik workshop provided an intensive setting for disciplinary work, revision clinics, mentoring and institutional planning, while trainers adjust emphasis according to participant needs and institutional maturity. Each module follows a consistent pattern combining purpose, key concepts, practical explanation, partner examples, guided exercises, application tools, peer discussion and work on participants' own proposals. The materials establish shared principles while allowing adaptation to national credit systems, qualification frameworks, approval procedures, languages and digital capacities. Institutions should distinguish essential quality requirements from adaptable recommendations and locally determined procedures, preserving transparency, academic standards, learner protection, feasibility and relevance throughout development, delivery and revision.

Part II — Core Training Sessions

Module 1: Understanding Micro-credentials

 MODULE FACTSHEET	
 Suggested duration:	90–120 minutes
 Recommended format:	Presentation, guided discussion, case-based group exercise and individual reflection
 Primary target group:	Academic and administrative staff involved in the design, delivery, approval and quality assurance of micro-credentials
 Supporting target groups:	University leadership, quality assurance staff, lifelong learning units and digital learning specialists
 Learning outcomes:	
Upon completion of this module, participants should be able to:	
1. explain the meaning and purpose of a micro-credential; 2. identify the essential characteristics of a credible micro-credential; 3. distinguish the learning experience from the credential issued upon its successful completion; 4. differentiate micro-credentials from short courses, certificates of attendance, digital badges and formal qualifications; 5. explain how micro-credentials contribute to lifelong learning, upskilling and reskilling;	6. describe different ways in which micro-credentials can relate to formal study programmes and qualifications; 7. explain the concepts of quality, transparency, portability, <u>stackability</u> and recognition; 8. assess whether an existing short programme could be developed into a micro-credential; 9. describe the main stages in the European and international development of micro-credential systems; 10. discuss the potential role of micro-credentials within their own institution.

1.1 Purpose of the Module

This module establishes a common understanding of micro-credentials across the MICRO4ASIA partner institutions. It introduces their defining characteristics, explains their relationship with short programmes, lifelong learning and formal qualifications, and examines their contribution to skills development and labour market responsiveness. A shared conceptual foundation is particularly important for MICRO4ASIA. Partner institutions in Vietnam and Laos already deliver short courses, professional training and other non-degree learning opportunities. However, these activities use different terminology, certification practices and institutional procedures. In most of the institutions examined by the Capacity Gap Analysis, the term *micro-credential* was either unfamiliar or lacked formal institutional recognition, even when existing programmes displayed some of its characteristics. This module therefore enables participants to distinguish between a short learning experience, a certificate of attendance or completion, a digital badge, an assessed micro-credential, a module within a formal study programme and a formal qualification. It also introduces the conditions that support confidence in micro-credentials: relevance, valid assessment, quality assurance, transparency, portability and opportunities for recognition.



1.2 What Is a Micro-credential?

For the purposes of MICRO4ASIA, a micro-credential can be understood as a verifiable record confirming that a learner has achieved a defined set of learning outcomes following a relatively small volume of learning, with those outcomes assessed against transparent criteria and supported by appropriate quality assurance. This working definition reflects the 2022 Council Recommendation on a European approach to micro-credentials. The Recommendation defines a micro-credential through several interconnected elements: a small volume of learning, specific learning outcomes, transparent assessment, relevance to personal, societal, cultural or labour market needs, learner ownership, portability and quality assurance. ([EUR-Lex](#)) Two related elements should be clearly distinguished: **The learning experience** is the course, module, training activity or assessed learning process through which the learner develops the intended knowledge, skills and competences. **The micro-credential** is the record issued after the learner has demonstrated the required learning outcomes. A course therefore leads to a micro-credential when the required conditions are met. The course and the resulting credential are related, although they are not interchangeable concepts.

The European definition refers to a *small volume of learning* without establishing a universal minimum or maximum number of hours or credits. The appropriate volume depends on the purpose, complexity, level and context of the learning outcomes. A micro-credential may therefore involve:

- several hours of specialised professional learning;
- a short intensive programme;
- a course lasting a few weeks (but not every day of the week);
- a component of credit-bearing university course;
- assessed learning acquired through professional or other prior experience.

The workload must be sufficient to achieve the stated learning outcomes and must be communicated transparently. Where possible in higher education, the European approach recommends expressing the workload through ECTS credits. Other credible workload measures may be applied where ECTS is not used. In EU partner Universities, they usually have 1 or 2 ECTS credits, involving 25-30 or 50-60 total learning time.

1.3 Core Characteristics of a Micro-credential Course

A credible micro-credential is built around a focused and coherent volume of learning that addresses a clearly identified professional, academic, societal or personal need. Its learning outcomes explain what participants are expected to know or be able to do and are achievable within the stated workload. Achievement is demonstrated through an appropriate assessment, such as an examination, project, practical task, presentation, portfolio or case analysis, using transparent criteria. The programme is supported by quality assurance covering its design, delivery, assessment, staffing, learner experience and periodic review. The resulting credential should provide clear information on the learner, issuing institution, learning outcomes, workload, level



where applicable, form of participation, assessment and quality assurance arrangements. Learners should be able to access, store and share the credential, while institutions and employers should be able to understand and verify it. A micro-credential may represent an independent learning achievement or contribute to a broader learning pathway. Decisions concerning recognition, credit transfer or combination with other credentials remain subject to the rules of the receiving institution or competent authority.

1.4 Micro-credentials and Other Forms of Learning

The term *micro-credential* is sometimes used loosely for any short learning experience. A more precise distinction is needed to maintain academic credibility and learner trust. Short courses, certificates and digital badges can all contribute to flexible learning, although they serve different purposes. A short course describes a limited learning experience, while a micro-credential records verified achievement. An existing short course can therefore become the basis for a micro-credential when it includes clear learning outcomes, appropriate workload, transparent assessment, reliable learner identification, quality assurance and suitable documentation. The MICRO4ASIA Capacity Gap Analysis confirms that partner institutions already offer many short and non-degree programmes that could be developed in this direction. Certificates of attendance mainly confirm participation, whereas certificates of completion may involve additional requirements but do not by themselves demonstrate assessed learning. Digital badges provide a convenient way to display participation or achievement and may represent a micro-credential when they contain sufficient information on the issuer, learning outcomes, assessment and quality assurance. Modules from formal programmes may also be issued separately when they are independently assessable, clearly documented and institutionally approved.

Micro-credentials also support lifelong learning by offering focused opportunities at different stages of education and professional life. They can help learners update existing knowledge, acquire emerging technical or transferable skills, respond to technological and regulatory change, prepare for career transitions or return to education after a period of absence. They may also provide an entry point into a new field, contribute to personal or civic development, or address specific community and regional needs. In this way, micro-credentials can support upskilling, reskilling, progression to further learning and, where institutional procedures allow, recognition of prior learning acquired through professional, non-formal or informal experience. Their flexible format is particularly valuable for learners whose work, location or personal circumstances make longer programmes difficult to attend. The MICRO4ASIA Gap Analysis shows that existing short programmes in Vietnam and Laos already reach diverse groups, while stronger integration with lifelong learning strategies would improve their continuity, scalability, recognition and long-term institutional value.

Form of learning or recognition	Main purpose	Assessment of learning outcomes	Credential or record	Potential recognition
Short course	Provides a limited learning experience	May or may not be included	Certificate may be issued	Depends on course design and institutional rules
Certificate of attendance	Confirms participation	Usually absent	Attendance record	Generally limited
Certificate of completion	Confirms completion of stated requirements	May include assessment	Completion certificate	Depends on transparency and quality assurance
Digital badge	Digitally represents participation, achievement or status	Depends on badge criteria	Digital record	Depends on evidence, metadata and issuer
Micro-credential	Certifies assessed learning outcomes from a small volume of learning	Required	Transparent and verifiable record	May be recognised for academic, training or employment purposes
Module within a degree programme	Contributes to a formal curriculum	Required	Transcript entry and credits	Recognised within the programme and potentially elsewhere
Formal qualification	Certifies broad achievement at an established qualification level	Required and comprehensive	Degree, diploma or other qualification	Recognised according to national and institutional frameworks

1.5 Relationship with Formal Qualifications

Formal qualifications, including bachelor's and master's degrees, represent broad and coherent programmes of learning at an established level, supported by substantial workload, comprehensive assessment and formal approval. Micro-credentials address smaller, more focused achievements



and may relate to formal qualifications in several ways. They can stand alone in response to a specific professional, societal or personal need; complement an existing qualification with specialised or updated knowledge; be embedded within a degree programme and issued separately; form part of a stackable pathway; or prepare learners for further study through access or bridging provision. Their formal recognition depends on the relevant legal, institutional and qualifications framework, with final decisions made by the competent institution, employer or authority. At the University of Dubrovnik, lifelong learning programmes may be offered with or without ECTS credits. Credit-bearing provision requires assessment of learning outcomes and appropriate quality assurance, while supplementary documentation records programme units, credits, level, content, outcomes and learner achievement.

1.6 Micro-credentials and Labour Market Needs

Technological change, new production models, regulation and evolving work practices continually create new competence requirements. Full degree programmes provide broad disciplinary and professional foundations, while micro-credentials can respond quickly to focused and emerging skills needs. Their labour market value derives from shorter development cycles, flexible delivery for working learners, employer involvement, regularly updated content, practical assessment and clear communication of achieved competences. Cedefop highlights micro-credentials as small units of learning capable of providing timely and flexible responses to labour market demand, while emphasising common terminology, quality assurance, recognition and portability. Relevance should therefore be demonstrated through evidence rather than assumed from the contemporary nature of a topic. Useful sources include employer consultations, sector studies, job vacancy data, professional standards, government strategies, alumni feedback and analysis of local skills shortages. The MICRO4ASIA Capacity Gap Analysis also identified the need for more formal and repeatable stakeholder involvement in programme design, delivery and evaluation.

1.7 Building Trust: Quality, Transparency, Portability and Recognition

The wider use of micro-credentials depends on trust. Learners need confidence that an investment of time and resources will lead to meaningful learning. Universities require evidence of academic quality. Employers need to understand the competences represented by the credential. Recognition bodies require reliable and verifiable information. Four concepts are central to this trust.

Quality assurance should cover the provider, programme, learning outcomes, teaching, assessment, learner experience and periodic review. It should be proportionate to the scale of the micro-credential while preserving academic integrity and learner protection. The small size of a programme does not justify weaker assessment or unclear quality arrangements. The European standard elements provide a common structure for communicating the content and value of a micro-credential. These elements improve comparability and support recognition, although their inclusion alone does not guarantee that another institution will recognise the credential. A portable credential can be stored and shared by the learner, understood by the recipient and authenticated. Open data standards and secure digital systems can improve interoperability across institutions

and countries. Recognition may occur for admission to further learning, exemption from part of a programme, transfer or accumulation of credits, professional development, employment or promotion and fulfilment of sectoral training requirements. Recognition procedures should state who makes the decision, which evidence is required and what academic or professional effect the recognition produces.

PRINCIPLE	MEANING	PRACTICAL QUESTION
 Quality	The learning experience and credential are designed, delivered, assessed and reviewed through credible procedures.	 Can the provider demonstrate that the programme and assessment meet defined standards?
 Transparency	The credential contains sufficient information to understand and compare the learning achieved.	 Can an external reader determine what the learner knows or can do, at what level and after what workload?
 Portability	The learner can store and share the credential and others can verify its content and authenticity.	 Can the credential be securely presented to another university or employer?
 Recognition	A competent body accepts the credential or its learning outcomes for a defined purpose.	 Can the achievement contribute to further study, training, employment or professional progression?

1.8 European Development of Micro-credentials

Short courses and targeted professional credentials have existed for decades, while the European policy agenda has recently sought to establish shared terminology and principles for quality, transparency, portability and recognition. Cedefop notes that micro-credentials are relatively new in policy debate, although comparable forms of short learning have a longer history. Their growing importance is linked to the European Skills Agenda, which promotes flexible learning for adult upskilling, reskilling and labour market transitions, and to the Bologna Process, which has explored the role of smaller learning units within higher education. The Council Recommendation of 16 June 2022 provides the main European reference framework by defining micro-credentials, identifying standard descriptive elements and setting principles for design, issuance, quality assurance, recognition and portability. Its implementation is supported by instruments including the European Qualifications Framework, national qualifications frameworks, ECTS, the ESG, Europass, European Digital Credentials for Learning and ENIC-NARIC networks. Together, these tools support comparability, interoperability and learner mobility.

1.9 International Development

Micro-credentials are expanding across higher education, vocational education, professional training, corporate learning and online education worldwide. Although terminology and regulatory status differ across countries and sectors, international approaches share several priorities: flexible access, responsiveness to changing skills needs, short and modular provision, reliable assessment,



transparent information, digital issuance and verification, opportunities for accumulation and recognition, and stronger cooperation between education providers and employers. At the same time, international debate continues around definitions, quality assurance, the role of private providers, credit transfer, learner protection and cross-border recognition. Since 2020, Cedefop has supported dialogue with UNESCO, the European Training Foundation, the International Labour Organization and representatives of non-European qualification systems. Its 2025–2027 research phase examines credentials developed outside formal education and training, including those issued by companies and professional bodies. For MICRO4ASIA, these international developments offer useful models that must be adapted to the legislation, governance, qualification systems, infrastructure and labour market conditions of Vietnam and Laos.

1.10 Application to the MICRO4ASIA Context

The partner universities enter MICRO4ASIA with substantial practical experience in delivering short programmes in fields such as accounting, taxation, entrepreneurship, banking, public administration, technical education, sustainability and professional development. Building a coherent micro-credential system requires this existing provision to be supported by a shared institutional definition, clear and assessable learning outcomes, realistic workload calculations, coherent course structures and consistent assessment standards. Programmes also need to be integrated into institutional quality assurance, supported by transparent and verifiable credential documentation, and linked to clear policies on credit allocation, recognition and learner progression. Stronger engagement with employers, public institutions and other external stakeholders is needed to improve relevance, while appropriate digital systems should support delivery, learner records, verification and portability. Institutions must also define responsibility for coordination, approval, monitoring and long-term sustainability. MICRO4ASIA therefore builds on current short-course experience and supports its systematic development into transparent, quality-assured and potentially recognisable micro-credentials across institutions.



1.11 Learning Activities

Learning Activity: Does This Qualify as a Micro-credential?



INSTRUCTIONS

Participants should work in small groups. For each scenario, decide whether the learning offer already meets the essential characteristics of a micro-credential, could become a micro-credential with additional development, currently represents another form of learning or recognition. Each group should justify its decision using the criteria introduced in this module.



SCENARIO A

A university organises a three-hour webinar on digital marketing. Participants receive a certificate confirming their attendance. No learning outcomes or assessment are defined.



SCENARIO B

A university offers a 50-hour blended course on sustainable banking. It has four measurable learning outcomes, defined admission criteria and a final applied project assessed using a published rubric. The programme has been approved through the university's quality assurance procedure. Successful learners receive a digital credential containing information on the issuer, learning outcomes, workload and assessment.



SCENARIO C

A six-credit module is delivered within a bachelor's programme. External professionals may attend the lectures, but the university has no procedure for separately assessing or certifying their achievement.



SCENARIO D

Experienced banking professionals submit a portfolio demonstrating competences acquired through work. The portfolio is assessed against published learning outcomes by an authorised university panel. Successful applicants receive a verifiable institutional credential.



SCENARIO E

An online platform issues a digital badge after a learner watches five videos. The badge records the learner's name and course title. No assessment, workload information or quality assurance is reported.



FACILITATOR GUIDANCE

A

Scenario A: Certificate of attendance. Additional outcomes, assessment and quality arrangements are needed.

B

Scenario B: Displays the principal characteristics of a micro-credential.

C

Scenario C: The module could support a micro-credential after introducing separate enrolment, assessment, issuance and relevant institutional procedures.

D

Scenario D: May qualify as a micro-credential based on validation of prior learning, provided that assessment, quality assurance and documentation requirements are met.

E

Scenario E: Digital badge representing participation. Assessment and sufficient transparent information are required for it to represent a micro-credential.



Learning Activity: Assessing an Existing Short Course



INSTRUCTIONS

Participants should select one existing short course at their institution and complete the following assessment.

Question	Yes	Partly	No	Evidence or action required
1. Does the course address a clearly identified need?				
2. Is the target group clearly defined?				
3. Are measurable learning outcomes stated?				
4. Is learner workload estimated?				
5. Are learning outcomes formally assessed?				
6. Are assessment criteria transparent?				
7. Is the programme covered by quality assurance?				
8. Is learner identity reliably established?				
9. Does the issued document describe the achieved learning?				
10. Can the learner store and share the credential?				
11. Is there a stated recognition or progression pathway?				
12. Is stakeholder and learner feedback used for revision?				



PRIORITY ACTIONS

Participants should identify three priority actions required to develop the selected course into a credible micro-credential.

1

2

3



REVIEW QUESTIONS

Use these questions to review and reflect on key aspects of micro-credentials in the context of short courses.



1

What distinguishes a micro-credential from a short course?



6

What information must be transparent to learners and external users?



2

Why is assessment essential?



7

What is the difference between portability and recognition?



3

Can a digital badge represent a micro-credential?



8

Who decides whether a micro-credential can be stacked toward a larger qualification?



4

How can a micro-credential contribute to lifelong learning?



9

How can employers contribute to the relevance of a micro-credential?



5

What are the possible relationships between a micro-credential and a formal qualification?



10

Which elements are currently missing from short-course provision at your institution?



Tip for facilitators: Encourage participants to use these questions for discussion, reflection and continuous improvement of micro-credential development and implementation.



1.12 Key Messages

Key Messages

-  A micro-credential certifies assessed learning outcomes achieved through a limited and focused volume of learning.
-  The learning activity and the credential issued after successful assessment are distinct components of the process.
-  Short duration alone does not define a micro-credential.
-  Clear learning outcomes, valid assessment, transparency and quality assurance provide its academic foundation.
-  Micro-credentials can support upskilling, reskilling, personal development and flexible lifelong learning pathways.
-  They may be stand-alone, embedded in larger programmes or combined with other credentials.
-  Stackability and recognition depend on the decisions and procedures of competent institutions or authorities.
-  Portability requires understandable information, learner control and reliable verification.
-  Labour market relevance is strengthened through evidence and structured engagement with employers and other stakeholders.
-  Existing short programmes in MICRO4ASIA partner institutions provide a strong starting point for developing quality-assured micro-credentials.



Module 2: Target Groups, Skills Needs and Stakeholder Engagement

 MODULE FACTSHEET		
	Suggested duration:	120–150 minutes
	Recommended format:	Short presentation, guided institutional reflection, stakeholder-mapping exercise and development of a demand-validation plan
	Primary target group:	Academic and administrative staff involved in developing micro-credentials
	Additional users:	University leadership, lifelong learning units, quality assurance staff, career services and external relations offices
 Learning outcomes:		
After completing this module, participants should be able to:		
1. define the intended target group of a micro-credential with appropriate precision; 2. distinguish learner demand from broader societal or labour market need; 3. collect and assess evidence concerning current and emerging skills requirements; 4. identify relevant internal and external stakeholders; 5. select engagement methods suited to different stakeholder groups; 6. organise employers' participation in programme co-design and review; 7. validate demand before committing institutional resources; 8. document how stakeholder evidence has influenced the final programme.		

2.1. Purpose of the Module

This module helps participants identify the learners for whom a micro-credential is intended, determine the skills and competence needs it should address, and establish structured cooperation with employers and other external stakeholders in order to improve the employability of learners. Micro-credentials are most effective when they respond to a demonstrated need and are designed for a clearly defined learner group. Interest in a contemporary topic or an assumed labour market trend is insufficient on its own; programme developers need evidence on prospective learners, the challenges they face, the competences they require and the progression the programme should support. The MICRO4ASIA Capacity Gap Analysis found that partner institutions already provide short courses for professionals, civil servants, employees, entrepreneurs, farmers and unemployed persons. Although many programmes respond to genuine needs, they are often developed through individual initiatives, external projects or immediate requests. This module therefore promotes repeatable, documented stakeholder engagement that supports needs analysis, curriculum design, delivery, evaluation, revision and quality assurance.

2.2. Starting with the Learner

Every micro-credential should begin with a clear view of who will benefit and what learners should be able to do after completing it. Broad labels such as “students,” “professionals” or “employees” are insufficient for curriculum design because learners may differ in prior education, work experience, digital skills, language proficiency, motivation, study time and expectations regarding recognition. A useful target-group definition should therefore describe the learner’s current



position, intended progression and practical constraints. Programme developers should determine whether the course is aimed at recent graduates entering employment, professionals seeking promotion, employees responding to technological or regulatory change, public-sector staff developing specialised competences, entrepreneurs strengthening business skills, or students complementing a formal qualification. Expected prior knowledge should also be clear. A course for experienced banking professionals will require a different structure, level and teaching approach from one designed for graduates entering the financial sector, and similar distinctions apply across other disciplines.

2.3. Target-group profile



A well-defined learner profile enables more accurate decisions on entry requirements, learning outcomes, workload, teaching format, support arrangements and assessment.

A practical learner profile should capture the following dimensions:

 DIMENSION	 QUESTIONS FOR PROGRAMME DEVELOPERS
 Current status	Are the learners students, graduates, employed professionals, managers, civil servants, entrepreneurs or jobseekers?
 Prior knowledge	Which qualifications, competences or professional experience are expected?
 Learning need	Which specific problem, task or competence gap should the course address?
 Motivation	Are learners seeking employment, career progression, regulatory compliance, academic credit or personal development?
 Availability	Can they participate full-time, part-time, online, in the evening or during intensive periods?
 Digital readiness	What level of access to technology and digital competence can be assumed?
 Language	Which language of instruction and supporting materials is appropriate?
 Expected outcome	What practical, academic or professional progression should follow completion?
 Barriers to participation	Are cost, location, working hours, disability, caring responsibilities or connectivity likely to limit access?

2.4. Distinguishing Need, Demand and Participation

A course may address an important national or sectoral need and still attract limited enrolment because the target group is poorly defined, the format is inconvenient, the fee is too high or the value of the credential is insufficiently communicated. Conversely, strong initial interest does not necessarily demonstrate that a programme addresses a strategically important or sustainable skills need. A sound proposal should therefore combine evidence of relevance with evidence of likely uptake. Programme developers should distinguish three related concepts.



Need refers to a competence or learning gap that affects individuals and their employability, organisations, sectors or communities. A need can exist even when prospective learners are not yet aware of it.

Demand indicates a willingness to participate in or support a learning offer. It may be expressed by individuals, employers, public institutions or professional bodies.

Participation is the actual enrolment and completion behaviour observed after a programme has been launched.

2.5. Analysing Skills and Competence Needs

Skills-needs analysis helps universities identify the knowledge, skills, competences and behaviours required within a specific occupation, sector, institution or community. It examines the gap between current capability and expected performance and distinguishes between immediate, emerging and longer-term needs. Immediate needs may result from new regulations, technologies, production processes, service standards or organisational changes. Emerging needs often relate to digitalisation, artificial intelligence, cybersecurity, sustainability reporting, green transition or new business models, while longer-term priorities may reflect demographic change, regional development, internationalisation or broader economic transformation. The MICRO4ASIA Capacity Building Plan therefore requires pilot micro-credentials to respond to clearly identified skills needs and encourages institutions to build on their disciplinary strengths. Relevance and likely demand should be verified through consultation with employers, professional bodies, public authorities and other external stakeholders before programme development proceeds. This process provides a clear basis for defining learning outcomes, content, delivery and assessment.

A credible analysis should combine several sources of evidence, such as labour market statistics, occupational forecasts, vacancy data, employer surveys, government strategies, sector reports, professional standards, regulatory changes, alumni feedback and existing training demand. Each source provides only a partial view: job advertisements may favour large employers, interviews may emphasise immediate operational problems, and policy documents may identify broad priorities without defining specific competences. Triangulation strengthens the proposal by confirming similar needs through independent evidence. Broad trends should then be translated into concrete learner performance. “Digital transformation,” for example, may involve data analysis, automation, cybersecurity, artificial intelligence or digital customer experience, while “green skills” may include carbon accounting, sustainable finance or resource efficiency. Stakeholder mapping complements this analysis by identifying internal and external actors who influence, deliver, regulate, recognise or benefit from the micro-credential, and by clarifying the contribution each can make during design, delivery and review.

Stakeholder group		Possible contribution
	Employers	Skills evidence, case studies, guest teaching, workplace projects, participant recruitment and graduate feedback
	Professional bodies	Occupational standards, sector legitimacy, recognition and continuing professional development requirements
	Ministries and public agencies	Policy priorities, regulatory context, public-sector demand and national qualification alignment
	Chambers of commerce and business associations	Access to firms, sector-wide consultation and dissemination
	Students and alumni	Learner expectations, barriers to participation and feedback on usefulness
	Quality assurance bodies	Guidance on programme approval, monitoring and recognition
	Other universities	Peer review, shared provision, credit recognition and regional cooperation
	Civil society and community organisations	Identification of social, regional and inclusion-related needs
	Technology providers	Digital delivery, credentialing, verification and learning-platform support

2.6. Moving from Transactional Cooperation to Structured Partnership

Transactional cooperation often begins with an immediate request: an employer asks a university to organise a course, a ministry commissions training, or an external project funds a temporary programme. These arrangements can produce relevant learning, yet their value is reduced when knowledge, contacts and responsibilities remain tied to one contract or individual. After the activity ends, the institution may lack a reusable curriculum, documented procedures, shared evaluation evidence or a mechanism for continued review. Structured partnership creates continuity through agreed consultation schedules, defined stakeholder roles, standard needs-analysis tools, curriculum review, participation in teaching or assessment, periodic evaluation and recorded decisions on revision. The formality required depends on the depth of cooperation. A memorandum of understanding may support long-term collaboration, an advisory group may oversee several programmes, and a short written statement may be sufficient for one micro-credential. The essential aim is to make engagement repeatable, transparent and connected to institutional decision-making.

Stakeholder engagement should continue throughout the micro-credential lifecycle. During exploration, stakeholders help identify skills gaps, learner groups, participation barriers and expected benefits. In co-design, they review outcomes, content, delivery and assessment, while the

university safeguards academic coherence and quality. During delivery, external experts may provide guest teaching, workplace data, mentoring, simulations or practical challenges. Evaluation and revision then determine whether the programme addressed the identified need and whether its content, assessment and format require adjustment. Consultation methods should reflect the programme's maturity and available resources. Interviews provide detailed occupational insight, focus groups compare perspectives, surveys indicate broader demand, advisory panels support continuity, and curriculum workshops translate needs into outcomes and authentic tasks. Employers contribute most effectively by describing actual duties, performance gaps, emerging technologies and regulatory requirements. Academic staff convert this evidence into coherent learning outcomes and assessment, focusing on what learners must perform, the expected standard and the evidence required to demonstrate competence.

2.7. Validating Demand before Programme Approval

Demand validation should take place before substantial resources are committed. The depth of validation should be proportionate to the size, cost and strategic significance of the planned micro-credential. A basic validation should demonstrate that the target group can be reached, that the proposed format is acceptable and that a reasonable number of learners or sponsoring organisations are likely to participate. Stronger evidence may include expressions of interest, employer commitments, enrolment surveys, letters of support, pre-registration data, analysis of previous course demand or participation commitments from professional associations. Validation should address practical questions concerning price, schedule, location, language, delivery format, expected recognition and employer support for participation. Expressions of general interest should be interpreted carefully. Respondents may indicate that a topic is useful while remaining unwilling to enrol, pay a fee or release employees from work. Questions should therefore examine likely behaviour and constraints.

Formal Mechanisms for Co-design and Evaluation. To address the weakness identified in the Gap Analysis, MICRO4ASIA partner institutions should consider introducing a minimum institutional procedure for stakeholder engagement. For each new micro-credential, the proposal file should identify the stakeholders consulted, the evidence of need, the consultation method, the main findings and the resulting programme changes. The approval body should be able to verify that external relevance has been considered. Institutions developing a larger portfolio may create a sectoral advisory group. Such a group could meet once or twice per year, review proposed courses, discuss emerging skills needs and examine evidence from completed programmes. The terms of reference should clarify membership, frequency of meetings, advisory responsibilities, confidentiality and the relationship with institutional decision-making bodies. Evaluation should also be formalised. Employers or professional bodies may review student projects, provide feedback on workplace application or participate in periodic programme review. Learner evaluation should capture perceived relevance, workload, teaching quality, assessment and the usefulness of the credential. External feedback should inform academic decisions without replacing institutional responsibility for quality assurance.



DEMAND-VALIDATION RECORD

This record helps document and summarise the key evidence used to validate the need and feasibility of a proposed micro-credential.

AREA		EVIDENCE TO BE COLLECTED
	Target-group size	Estimated number of eligible and reachable learners
	Stated interest	Survey responses, interviews or expressions of interest
	Employer commitment	Participant nominations, co-funding, study leave or letters of support
	Format feasibility	Preferred schedule, location, language and delivery mode
	Financial feasibility	Acceptable fee level and possible institutional support
	Competing provision	Existing courses, providers and alternative credentials
	Recognition value	Expected academic, professional or employment benefit
	Sustainability	Probability of repeated demand beyond the first cohort



2.8. Learning activities

Stakeholder and Demand Map

Participants should select one proposed or existing micro-credential and complete the following matrix.

Stakeholder	Interest in the programme	Potential contribution	Influence	Proposed engagement method	Stage of involvement



Preparing a Skills-Needs and Demand-Validation Plan

A strong plan ensures that micro-credentials are relevant, evidence-based and designed with stakeholder input.

A good plan should:



SUGGESTED WORKING TEMPLATE	
COMPONENT	INSTITUTIONAL RESPONSE
Proposed micro-credential	
Primary target group	
Prior knowledge and entry requirements	
Main competence gap	
Evidence currently available	
Additional evidence required	
Internal stakeholders	
External stakeholders	
Consultation methods	
Indicators of sufficient demand	
How findings will affect course design	
Post-delivery evaluation method	

What this plan helps achieve

- Alignment between needs and curriculum
- Stronger stakeholder engagement
- Evidence-based decision making
- Higher quality and relevance
- Greater impact after delivery





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Reflection Questions

Use these questions to assess how your institution validates and sustains short programmes.

1

Evidence basis



Are short programmes developed from systematic evidence or mainly from individual requests?

2

Employer voice



Who represents employers during consultations, and is their input sufficiently credible?

3

Learner voice



Are learners, alumni or potential participants included in the consultation process?

4

Documentation and validation



How is stakeholder input documented, and which institutional body verifies evidence of demand?

5

Sustainability

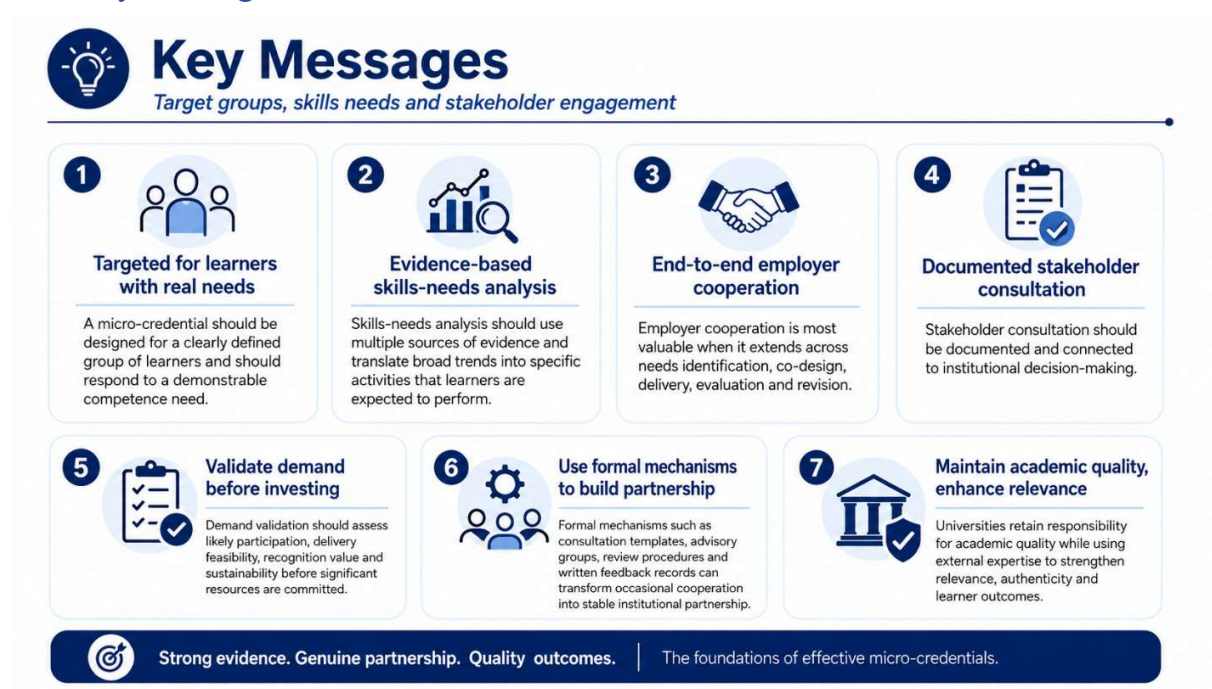


For externally funded programmes, how will relevance and financial sustainability be maintained after project funding ends?



Discussion output: identify two improvements to the institution's stakeholder-engagement and demand-validation process.

2.9. Key Messages



Module 3: Learning Outcomes, Modular Design and Workload

MODULE FACTSHEET		
	Suggested duration:	180–240 minutes
	Recommended format:	Short conceptual inputs, analysis of MICRO4ASIA syllabi, outcome-writing workshop, constructive-alignment exercise and workload calculation
	Primary target group:	Academic staff and course-development teams
	Additional users:	Quality assurance units, lifelong learning offices, academic committees and staff responsible for credit recognition
Learning outcomes:		
After completing this module, participants should be able to:		
1		Explain the role of learning outcomes in micro-credential design
2		Write clear, measurable and achievable learning outcomes
3		Design a coherent modular structure that supports learning progression and flexibility
4		Align outcomes with identified competence needs and assessment approaches
5		Estimate total learner workload using an appropriate framework

3.1. Purpose of the Module

This module helps participants translate an identified learner or labour-market need into a coherent and assessable micro-credential. It focuses on three core questions: what learners should demonstrate, how content should be organised to support achievement, and how much effort is required. The MICRO4ASIA Capacity Building Plan requires each programme to include clear learning outcomes aligned with skills needs, coherent learning units, suitable teaching and assessment methods, and a transparent workload estimate linked to the national credit system or ECTS where applicable. The European approach treats learning outcomes, workload, level, assessment and quality assurance as essential descriptive elements. By the end of the module, participants should be able to write measurable outcomes, select verbs appropriate to the intended level, distinguish aims from outcomes, connect outcomes with occupational tasks and qualification frameworks, organise content into modules, estimate workload, apply credit references correctly and construct an alignment matrix linking outcomes, activities and assessment.

3.2 Learning Outcomes as the Foundation of Micro-credential Design

A learning outcome states what a learner is expected to know, understand or demonstrate after completing a defined learning process. Written from the learner's perspective, it describes an observable achievement and provides a common reference for learners, teachers, assessors, quality



assurance bodies, employers and recognition authorities. Unlike a topic title such as digital banking, risk management or data analysis, a learning outcome specifies the performance expected after study. It should also be distinguished from the course aim, which expresses the provider's broader intention. For example, an aim may be to develop competence in organisational risk management, while outcomes specify that learners can identify risks, assess likelihood and impact, and recommend mitigation measures. MICRO4ASIA recommends concise aims and normally three to five focused outcomes, each linked to relevant content. Too few may underrepresent achievement, while too many may indicate over-scoping. Outcomes should remain measurable, appropriately aggregated and understandable to other universities, employers and recognition bodies.

From Topics to Outcomes

Turning course topics into observable learner achievements

COURSE TOPIC		POSSIBLE LEARNING OUTCOME	
	Cybersecurity threats	>	Analyse a basic organisational scenario to identify cyber threats and vulnerabilities.
	Financial planning	>	Design a financial plan based on a client's income, expenditure, assets, liabilities and stated goals.
	Digital banking	>	Evaluate a digital banking solution by considering customer needs, operational feasibility, regulatory requirements and risk.
	Data visualisation	>	Develop and present a dashboard that communicates relevant business trends to a non-technical decision-maker.
	Risk management	>	Construct a basic risk register and recommend proportionate mitigation measures.
	Key idea: A topic indicates the field of study. A learning outcome specifies the performance learners will be able to demonstrate after completing the learning process.		



3.3 Writing Clear and Measurable Learning Outcomes

A useful learning outcome generally contains four components:

Building a Learning Outcome

 Component	 Purpose	 Example
 Action	Identifies what the learner will do	analyse
 Object	Specifies the knowledge, material or task	a client's financial position
 Context	Describes the situation or conditions	using income, expenditure, asset and liability data
 Expected standard	Indicates the required quality or criterion	in order to identify material financial risks



The complete outcome could read:

Analyse a client's financial position using income, expenditure, asset and liability data in order to identify material personal and household financial risks.



Not every outcome needs to state all four elements explicitly. The outcome should nevertheless contain enough information to guide teaching and enable valid assessment.

Using Bloom's taxonomy

Bloom's revised taxonomy provides a practical vocabulary for selecting the cognitive level of an outcome. It should be used as a design aid rather than as a mechanical classification exercise.

Cognitive process	Typical measurable verbs	Suitable forms of assessment
 Remember	identify, list, define, recognise	quiz, short-answer test, identification task.
 Understand	explain, summarise, classify, illustrate	explanation, concept map, structured response.
 Apply	calculate, use, implement, demonstrate	practical exercise, simulation, worked problem.
 Analyse	compare, differentiate, diagnose, examine	case analysis, data analysis, diagnostic report.
 Evaluate	assess, justify, appraise, recommend	evaluation report, review, oral defence.
 Create	design, develop, construct, formulate	project, prototype, plan, portfolio.

Verbs such as understand, know, learn, become familiar with and be aware of are difficult to assess because they describe internal states rather than observable performance. The MICRO4ASIA peer-review process therefore recommended replacing vague wording with measurable verbs and strengthening alignment. In learning outcomes, “understand” is better expressed through actions

such as explain, interpret, classify or compare. Several partner syllabi illustrate this approach. Applied Personal Financial Planning moves from analysing a client's financial position, through calculating needs and designing strategies, to evaluating plan sustainability. AI Application for Finance progresses from explaining concepts to applying tools and designing a solution, while Champasack's Digital Banking proposal uses analyse, apply and evaluate against operational, regulatory and risk criteria. Other outcomes require refinement. "Understand cybersecurity principles" can become "Explain core concepts and distinguish common threats and vulnerabilities." Aspirations such as curiosity, confidence or growth mindset remain valuable but should be translated into assessable behaviours when they contribute to certification.

 From Aspirations to Assessable Actions <i>Turning broad aspirations into clear, observable and assessable learning outcomes</i>	
 BROAD ASPIRATION	 MORE ASSESSABLE FORMULATION
 Demonstrate curiosity	 Formulate evidence-based questions during user research.
 Embrace ambiguity	 Compare alternative interpretations of an incompletely defined user problem.
 Develop creative confidence	 Generate and justify several alternative solutions to a user need.
 Learn from failure	 Revise a prototype using evidence obtained through user testing.
 KEY MESSAGE: Focus on observable actions and evidence to make learning outcomes clear, measurable and certifiable.	

3.4 Level, Complexity and Qualification Frameworks

The level of an outcome is determined by more than the choice of verb. It also depends on the complexity of the subject matter, the context in which the learner performs, the degree of independence expected, the consequences of the decision and the responsibility assumed by the learner. The verb *analyse* may describe an introductory classroom task or a complex professional judgement. The object and conditions establish the difference. Compare the following outcomes:

- Analyse a supplied dataset using a predefined template.
- Analyse incomplete financial and operational data, select an appropriate analytical method and justify recommendations to senior management.

The second outcome involves greater complexity, judgement, independence and responsibility. CEDEFOP's operational framework proposes that micro-credentials specify outcomes in terms of

knowledge, skills, autonomy and responsibility. It also recommends identifying a relevant national or European qualification level while clearly distinguishing between a formally assigned level and an informal positioning used for transparency.

Knowledge, skills, responsibility and autonomy

Dimension	Guiding question
 Knowledge	What concepts, facts, principles, methods or theories must the learner command?
 Skills	Which cognitive, technical, analytical, communication or practical activities must the learner perform?
 Responsibility	For which decisions, outputs, people, resources or consequences is the learner expected to assume responsibility?
 Autonomy	To what extent does the learner work by following instructions, selecting among known procedures or independently designing an approach?

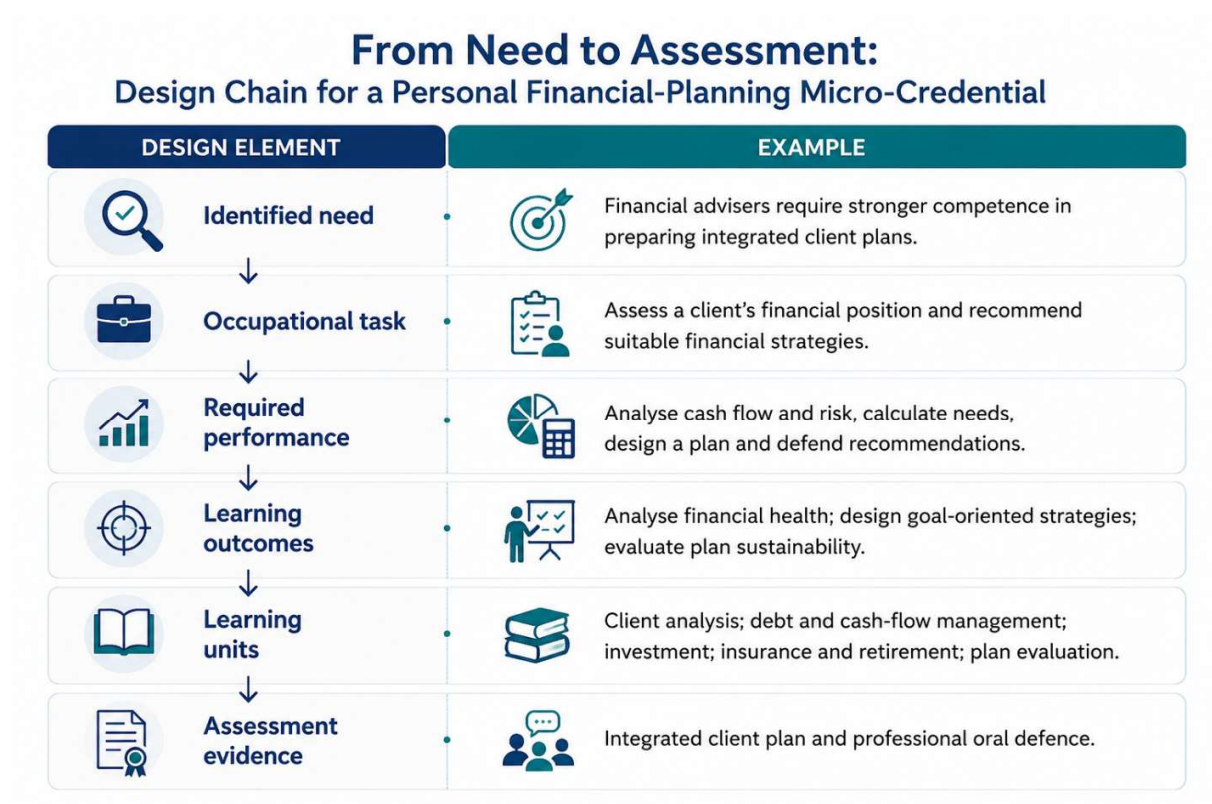
A foundational micro-credential may ask learners to apply a standard procedure with guidance, while a more advanced programme may require them to select and justify methods, solve unfamiliar problems and assume responsibility for an integrated professional output. Qualification frameworks support comparison and transparency by indicating the expected level of knowledge, skills, responsibility and autonomy. The European Qualifications Framework provides a common reference for comparing national systems, but an EQF level should be presented as formally assigned only when authorised through the relevant national or institutional framework. Where formal placement has not occurred, programme documents should state that learning outcomes were designed with reference to a particular level, subject to validation. The University of Dubrovnik illustrates this approach through credit-bearing lifelong learning programmes that assess outcomes, apply quality standards and document levels, content, ECTS credits and achievement. Within MICRO4ASIA, proposed levels should also match entry requirements and the prior knowledge expected from the target group.

3.5 From Occupational Needs to Modular Learning Architecture

Learning outcomes should be derived directly from the needs analysis developed in Module 2. Programme teams should begin by identifying the tasks, problems or decisions that learners are

expected to address in professional, academic or social contexts. They should then determine the knowledge, skills, responsibility and autonomy required for successful performance. This process creates a clear design chain linking the identified need to the expected learner performance, the formulation of learning outcomes, the organisation of content into coherent learning units and the selection of appropriate assessment evidence. Following this sequence helps ensure that the micro-credential remains relevant, focused and assessable, while preventing the curriculum from becoming a collection of loosely connected topics.

For a personal financial-planning micro-credential, the chain may look as follows:



Principles of modular design

A module or learning unit should represent a coherent step toward one or more programme outcomes. The internal sequence should support progression from foundational concepts toward application, integration and independent performance. A modular structure should therefore display:

Principles of Modular Design

Key principles that guide the design and development of effective micro-credential programmes.

DESIGN PRINCIPLE	APPLICATION
Coherence	Each unit has a clear purpose and contributes to specified outcomes.
Progression	Later units build upon knowledge or skills developed earlier.
Proportionality	The number and depth of topics are realistic for the available workload.
Independence	Each unit has sufficient identity to be reviewed or adapted.
Integration	Units combine to produce the overall competence represented by the credential.
Assessability	The unit contributes to evidence that can be evaluated against transparent criteria.

GOOD MODULAR DESIGN creates a coherent, progressive and assessable learning journey that results in meaningful and verifiable competence.

Modules should be designed as coherent learning units rather than equal blocks of lecture time. Each should combine content, an active learner task and a clear contribution to the final competence. The NEU data-science programmes illustrate this at two levels. Within each course, learning is organised into connected units, while six micro-credentials form a progressive pathway covering mathematical foundations, Python programming, data preparation, visualisation, predictive modelling and prompt engineering. Learners may complete one credential or continue through the broader sequence. This model shows that stackability depends on clear academic progression, explicit prerequisites and increasingly complex outcomes. The NEU review strengthened these relationships by making Programming for Data Science a prerequisite for later data-processing content and providing preparatory support for learners lacking mathematical or programming foundations. Each syllabus should show which outcomes are addressed by every unit, enabling teams to identify gaps, repetition and insufficient learning time through a curriculum map.

3.6 Workload and Credit Allocation

Workload represents the estimated time that an average successful learner needs to complete all activities required to achieve the stated outcomes. It includes more than scheduled teaching. Depending on the course, workload may cover live lectures, workshops, asynchronous online learning, reading, data collection, practice, group work, workplace activities, assignments, preparation for assessment, completion of assessment, feedback and revision. The European

standard elements require providers to state the notional workload needed to achieve the outcomes, using ECTS where possible. Providers that do not use ECTS may apply another credit or information system that describes workload and learning outcomes effectively. Workload is **notional** because it represents a reasoned estimate for the typical learner in the identified target group. Some learners will require more or less time.

Example Curriculum Map

Mapping learning units to learning outcomes and main learner output

Learning unit	LO1	LO2	LO3	Main learner output
 Unit 1: Foundations	Introduced			 Concept explanation
 Unit 2: Tools and procedures	Practised	Introduced		 Guided exercise
 Unit 3: Applied case	Reinforced	Practised	Introduced	 Case analysis
 Unit 4: Integrated project	Assessed	Assessed	Assessed	 Final project



The terms *introduced*, *practised*, *reinforced* and *assessed* help demonstrate progression more clearly than placing a simple check mark against each outcome.



Introduced
Outcome is discovered and initially understood.



Practised
Outcome is applied with guidance.



Reinforced
Outcome is strengthened through use in context.



Assessed
Outcome is evaluated against clear criteria.



Recommended workload calculation

Course teams should first define the outcomes and assessment evidence, then identify all learning activities and estimate the time required for each activity.

Workload component	Number of activities	Hours per activity	Total hours
 Live teaching or workshops			
 Guided online learning			
 Reading and preparation			
 Practical exercises			
 Group or workplace activity			
 Assignment or project work			
 Assessment preparation			
 Assessment completion			
 Feedback and revision			
 Total notional workload			



Check the estimate against these questions:

- Can the intended outcomes be realistically achieved within the available time?
- Does the workload reflect the prior knowledge of the target group?
- Is sufficient time allocated to practice and assessment?
- Are group activities and project work included?
- Is the volume of reading appropriate for a short programme?
- Is the final assessment proportionate to the available preparation time?



Important

The credit value should be derived from the total workload using the applicable national or institutional credit rules. Credit should not be selected first and followed by an attempt to fit an excessive curriculum into the predetermined number of hours.



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MICRO4ASIA partners operate within different national credit environments. The syllabus should therefore state separately the total notional workload in hours, the credit value under the applicable national system and the basis for any stated ECTS equivalence.



National credits and ECTS references

Core principles

- An ECTS equivalence should be presented only where a documented and institutionally accepted conversion method exists.
- The terms credit, Vietnamese credit, Lao credit and ECTS should not be used interchangeably.
- Total hours should be reported transparently.
- The conversion basis should be documented.
- If no authorised ECTS conversion is available, report the national credit and total workload without claiming a formal ECTS equivalence.

Why this matters



Different national conventions and drafting assumptions can create variation.

Inconsistent descriptions of hours or credits create uncertainty for learners, academic committees and recognition bodies.

Examples of variation

	Applied Economic Data Analytics	15 contact hours + 35 independent hours; 1 Vietnamese credit described as 1.5 ECTS.
	Digital Banking and Financial Innovation, Champasack	40 hours described as equivalent to 2 ECTS.
	Innovation Management	3 credits with 16 contact and 32 independent hours.
	Risk Management	2 credits with 30 total study hours.
	Financial Literacy for Entrepreneurs and Youth	1 ECTS with 12 contact and 20 independent hours.

Recommended presentation

Workload information	Example format
Total workload	50 hours
Scheduled contact	15 hours
Guided or independent learning	20 hours
Practical or project work	12 hours
Assessment	3 hours
National credit value	1 Vietnamese credit
ECTS reference	Equivalent to [X] ECTS under [name of approved institutional or national conversion rule]



Workload should be reviewed after initial delivery. Learner surveys, completion data and teacher observations can reveal whether reading, practical tasks or assessments required more or less time than anticipated.



3.7 Constructive Alignment and Practical Application

Constructive alignment ensures that learning outcomes, course content, teaching activities and assessment methods support one another. The central question is whether the selected activities prepare learners to demonstrate each outcome and whether assessment provides valid evidence of achievement. A lecture may be appropriate when learners must explain a concept, but outcomes requiring them to design, implement or evaluate a professional solution also require guided practice, application, feedback and authentic assessment. The NEU review identified weak alignment in early drafts, leading to the introduction of a table explicitly linking outcomes, teaching activities and assessment methods. Revised materials connected conceptual lectures, visual demonstrations, guided analytical practice, case-based learning and feedback with specific outcomes. BUH's Applied Economic Data Analytics for Policy and Business applies the same principle by linking outcomes related to data collection and statistical analysis with practical assignments, case studies, quizzes and a team-based capstone project, thereby creating a coherent pathway from learning to demonstrated competence. A practical alignment matrix should contain at least the following fields:

Alignment Matrix

 Learning outcome	 Content and learning unit	 Learning activities	 Assessment evidence	 Assessment criteria	 Workload
Analyse a business dataset to identify relevant trends and relationships.	Data preparation and exploratory analysis	Demonstration, guided analysis and individual practice	Analytical report	Accuracy, appropriate method, interpretation and clarity	12 hours
Develop a dashboard for a defined decision-making need.	Visualisation and dashboard design	Tool workshop, case exercise and peer feedback	Dashboard and short presentation	Relevance, visual accuracy, usability and communication	14 hours
Recommend an evidence-based business action.	Interpretation and decision support	Case discussion and project coaching	Final recommendation	Use of evidence, feasibility and justification	8 hours

3.8 Learning activities



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Participant Exercise: One-Page Design Matrix

Prepare a one-page design matrix for one existing MICRO4ASIA proposal

TASK: The team should

1  Reduce or consolidate the outcome set Reduce or consolidate the outcome set where necessary.	2  Use observable actions Replace vague verbs with observable actions.	3  Identify intended level Identify the intended level of each outcome.	4  Map to need Map each outcome to an occupational or learner need.
5  Map to learning units Identify the learning unit in which the outcome is introduced, practised and assessed.	6  Assessment evidence and criteria Specify assessment evidence and criteria.	7  Calculate workload Calculate the workload required for the complete learning process.	8  Verify credit value Verify that the stated credit value follows the applicable national or institutional rule.

FINAL REVIEW: Quality questions

	Review question	Yes	Partly	No	Revision required
1	 Are the outcomes written from the learner's perspective?	☐	☐	☐	
2	 Does each outcome use an observable action verb?	☐	☐	☐	
3	 Are the outcomes achievable within the stated workload?	☐	☐	☐	
4	 Is the level appropriate for the target group and prerequisites?	☐	☐	☐	
5	 Do the outcomes respond to identified learner or occupational needs?	☐	☐	☐	
6	 Is each outcome supported by relevant content and practice?	☐	☐	☐	
7	 Does each outcome have valid assessment evidence?	☐	☐	☐	
8	 Are assessment criteria transparent?	☐	☐	☐	
9	 Is the modular sequence coherent and progressive?	☐	☐	☐	
10	 Does the workload include all learner activities?	☐	☐	☐	
11	 Are total hours internally consistent throughout the syllabus?	☐	☐	☐	
12	 Is the national credit value clearly distinguished from any ECTS reference?	☐	☐	☐	
13	 Is the basis of the credit conversion documented?	☐	☐	☐	
	 Is any qualification-framework level stated accurately and with proper authority?	☐	☐	☐	



PURPOSE

Ensure that the micro-credential design is learner-centred, aligned, feasible and credit-appropriate.



OUTCOME

A clear, aligned one-page design matrix ready for review and implementation.



3.9 Key messages





Module 4: Teaching, Digital Delivery and Learner Engagement

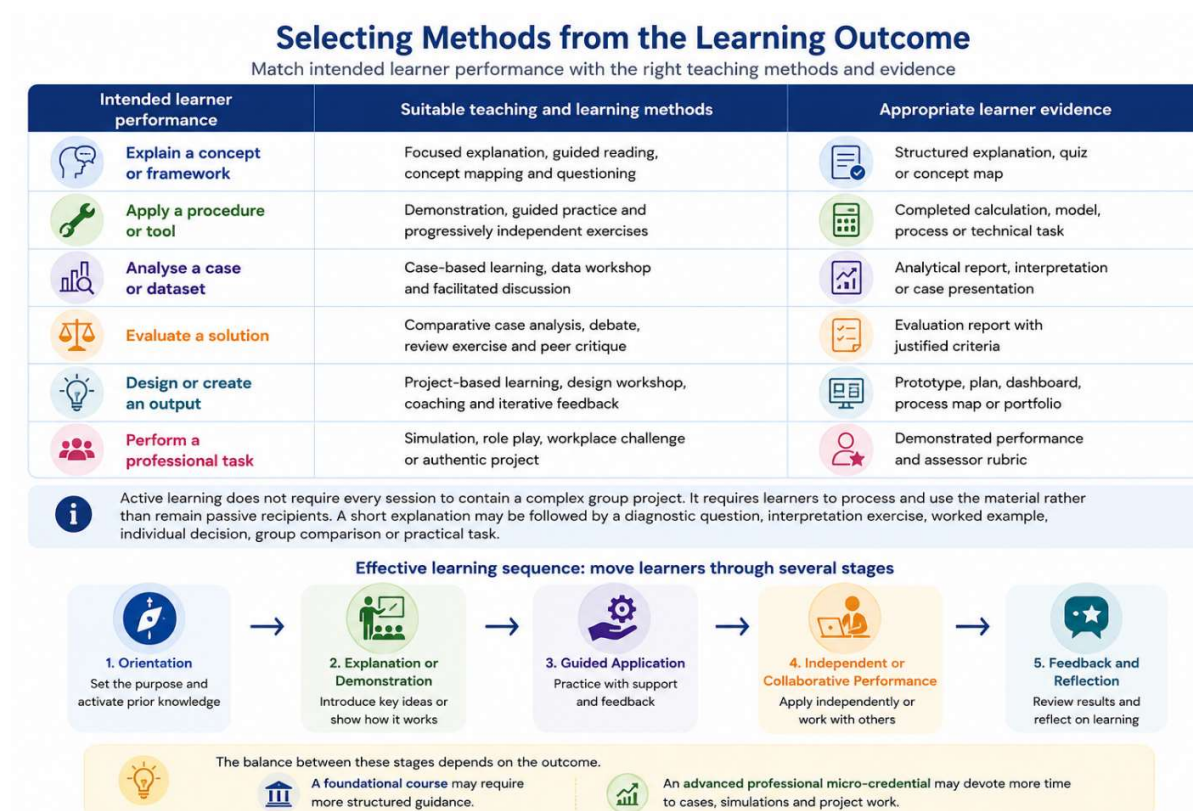
MODULE FACTSHEET		
	Suggested duration:	180–240 minutes
	Recommended format:	Interactive presentation, demonstration of digital learning materials, redesign workshop, LMS-based practice and peer review
	Primary target group:	Academic staff responsible for teaching micro-credentials
	Additional users:	Instructional designers, IT and digital infrastructure staff, video-production teams, LMS administrators, quality assurance staff and learner-support services
Learning outcomes:		
After completing this module, participants should be able to:		
1		Apply principles of effective online and <i>blended teaching</i> to <i>micro-credential</i> design.
2		Design engaging digital learning experiences that enhance learner participation and motivation.
3		Select and effectively use digital tools and platforms to support teaching and learner activities.
4		Facilitate interaction, collaboration and community in online and hybrid learning environments.
5		Evaluate the quality and accessibility of digital learning materials and learning activities.

4.1 Purpose of the Module

This module helps participants design learning experiences suited to the focused, flexible and practice-oriented nature of micro-credentials. It covers teaching methods, online and blended delivery, digital and video-based resources, learning management systems and inclusive approaches that sustain participation. Effective micro-credential teaching requires more than shortening a conventional course. Delivery should reflect clearly defined outcomes, limited workload, diverse learner profiles and practical purpose of the programme. Learners may include students, professionals, entrepreneurs, public-sector employees and adults returning to education, many of whom combine study with work and family responsibilities. The MICRO4ASIA Capacity Building Plan therefore emphasises digital delivery, LMS use and hybrid teaching, together with staff competences in scripting, recording, editing, instructional design, accessibility, metadata and platform integration. By the end of the module, participants should be able to select suitable methods, structure coherent learning sequences, produce concise digital materials, organise LMS content, support inclusion and engagement, and use learner and platform evidence to improve delivery.

4.2 Teaching Methods for Short-format and Active Learning

Micro-credentials should concentrate learning effort on the competences represented by the credential. Teaching time is limited, so every activity should have a clear relationship with one or more learning outcomes. The role of the teacher may shift among subject expert, demonstrator, facilitator, coach and assessor. A short explanation may establish the conceptual foundation, while substantial learning often occurs through learner activity: interpreting a case, applying a procedure, practising with a tool, solving a problem, producing an output and responding to feedback. The MICRO4ASIA review process highlighted this practical orientation. Early programme drafts were advised to reduce reliance on ex cathedra teaching and make greater use of demonstrations, experiments, observations, discussions and applied project work.



MICRO4ASIA practice examples

The *Corporate Finance for Non-Finance Managers* proposal combines interactive explanations with investment cases, group exercises, managerial reflection, short videos and simple Excel templates. This approach supports learners who need practical financial judgement without requiring advanced technical finance training. The *AI x Design Thinking* micro-credential uses

short lectures, interactive discussion, individual exercises and a team project addressing a real user-centred challenge. Learners progress from empathy and problem identification to ideation, prototyping, user testing and presentation. The *Digital Banking and Financial Innovation* proposal links hands-on assignments, case analysis and group discussion with quizzes and a practical capstone project. Industry experts may also contribute guest lectures and practical insights. These examples demonstrate that active learning should be connected to authentic professional or societal tasks. The inclusion of a case study or group discussion alone does not guarantee active learning. The learner must make a decision, apply a method, produce an output or defend a conclusion.

Designing an effective short session

A teaching session may be organised around one clearly defined learner performance.

Designing an Effective Short Session

Key session elements and their functions

1		Opening and relevance	Establishes why the topic matters and connects it with the learner's context
2		Expected outcome	States what learners should be able to demonstrate by the end
3		Prior-knowledge activation	Reveals existing experience, assumptions or misconceptions
4		Focused input	Introduces the minimum conceptual or procedural content required
5		Demonstration or example	Shows how the knowledge is applied
6		Learner practice	Requires the learner to apply, analyse, evaluate or create
7		Feedback	Provides information on the quality of performance
8		Consolidation	Summarises the central principles and connects them with subsequent learning
9		Follow-up task	Extends practice through independent or workplace-based activity

4.3 Designing Online and Blended Learning

Online delivery can widen participation and allow learners to study around professional and personal commitments. Blended delivery can combine the flexibility of asynchronous learning with the interaction and immediate support of live sessions. The European approach recognises that micro-credentials may be delivered in physical, online, blended, virtual and other digital learning settings. European policy also emphasises learner-centred, accessible and inclusive learning that serves a wide range of learner profiles. MICRO4ASIA itself uses a blended capacity-building model combining self-paced video content, readings and interactive live sessions. The mode should follow the learning outcome. An outcome requiring discussion and interpretation may be achieved online or face-to-face. An outcome requiring use of laboratory equipment may require physical participation. A software-based task may be taught effectively through screen demonstration and guided online practice.



1. Choosing the delivery model

Delivery model	Appropriate use	Design considerations
 Face-to-face	Practical equipment use, intensive workshops, simulations and relationship-building	 Attendance requirements, location, scheduling and access
 Synchronous online	Discussion, demonstration, coaching, presentation and immediate feedback	 Connectivity, time zones, session length and interaction
 Asynchronous online	Reading, video, quizzes, individual exercises and flexible practice	 Navigation, instructions, pacing, deadlines and support
 Blended	Programmes requiring both flexibility and direct interaction	 Clear relationship between online preparation and live application
 HyFlex or parallel participation	Situations where learners require a choice of physical or online attendance	 Comparable experience, technical support and equitable participation



2. Designing the blended sequence

A blended course should operate as one **integrated learning experience**. Online and face-to-face elements should not appear as unrelated components. The asynchronous component should **prepare learners for meaningful participation**. Live sessions should use the fact that learners and teachers are present together. Repeating the full content of a previously assigned video during the live session reduces the **value of blended design**. A practical sequence may include:



KEY PRINCIPLES



Align methods with learning outcomes.



Use a coherent sequence that builds understanding and skills.



Promote interaction, practice and feedback.



Focus live time on application, not repetition.



Choose the delivery model that best fits your context and learners.

Online learning often requires more time than learners initially expect, so course designers should estimate the effort needed to watch videos, read materials, complete quizzes, participate in discussions, practise skills and prepare assignments. Content should be divided into manageable units with clear labels, completion expectations and regular opportunities to retrieve or apply learning. Core materials should be distinguished from optional enrichment resources, while long text-heavy screens, extended recordings and excessive links should be avoided to reduce cognitive load. Synchronous online sessions should include purposeful participation through polls, chat, shared documents, annotations, breakout discussions, demonstrations, presentations or short decision tasks. Each activity should have a clear objective, expected output, time limit and reporting method. Teachers should also prepare for technical difficulties by ensuring that essential instructions and materials remain available asynchronously. Learners should know how to access support and, where necessary, complete an equivalent alternative activity.

4.4 Developing Digital Content and Video Lessons

Digital content should be designed as part of the learning process. Recording a conventional lecture and uploading it to an LMS rarely uses the full potential of digital learning. The MICRO4ASIA Capacity Building Plan requires digital staff to develop competence in scripting, recording, editing and packaging video-based materials for short, modular learning. It also identifies visual design, instructional design, interactive authoring, accessibility, metadata and reusability as relevant areas of capacity. Before producing a resource, the development team should clarify:



The opening should immediately establish relevance. Lengthy institutional introductions, repeated logos and generic background reduce attention. The explanation should follow a prepared script or structured storyboard. A demonstration should make normally hidden reasoning visible. For



example, a financial-planning video should explain why a particular calculation or recommendation is chosen. A software demonstration should use readable screen magnification and explain each decision rather than merely showing cursor movement.

Professional production strengthens credibility, while instructional quality remains the central priority. Clear sound, manageable speaking pace, consistent terminology and explicit reference to visual material are more valuable than complex effects. Video slides should contain limited text, while diagrams, tables and examples should remain visible long enough to support understanding. Transitions and animations should clarify structure. A consistent workflow should move from content outline and script or storyboard through academic review, recording, editing, captions, transcript, accessibility review, LMS upload, technical testing and version approval. Academic authors remain responsible for accuracy and alignment with learning outcomes, instructional designers support sequencing and learner activity, and technical staff manage production, accessibility and distribution. Core videos should include accurate captions and accessible transcripts where feasible. Visual information should also be communicated verbally, while images require meaningful alternative descriptions. Digital materials should use clear headings, readable typography, accessible tables, keyboard navigation and metadata to support reuse, updating and exchange across platforms. Each resource should contain or be associated with basic metadata:



METADATA FOR DIGITAL LEARNING RESOURCES

Use consistent metadata to improve discoverability, reuse, accessibility and quality.

METADATA FIELD	DESCRIPTION	EXAMPLE
 Resource title	The title used to identify the resource.	Assessing a Digital Banking Business Model
 Related micro-credential	The micro-credential this resource contributes to.	Digital Banking and Financial Innovation
 Related outcome	The specific learning outcome addressed by the resource.	LO2
 Resource type	The format or type of the resource.	Video demonstration
 Author and institution	Creator(s) and their institution.	Name and partner university
 Language	Language(s) in which the resource is available.	English / Vietnamese / Lao
 Estimated learning time	Expected time to complete the resource and any activities.	12 minutes plus a 15-minute exercise
 Version and date	Version number and release date.	Version 1.1, September 2026
 Accessibility resources	Available accessibility supports.	Captions and transcript available
 Rights and licence	Copyright and usage licence details.	Institutional or project licence
 Keywords	Main topics and terms for search and retrieval.	FinTech, digital banking, business model
 Technical format	File format and delivery information.	MP4, streaming and low-resolution download

WHY GOOD METADATA MATTERS

**EASY TO FIND**
Helps learners and educators quickly discover relevant resources.

**EASY TO REUSE**
Supports sharing and reuse across courses, programmes and institutions.

**EASY TO UPDATE**
Version and date information makes updating and maintenance simpler.

**EASY TO MANAGE**
Enables institutions to manage and grow their portfolio efficiently.

**GOOD PRACTICE**
Use standard fields, consistent formats and accurate information for all core digital resources.

**IMPLEMENTATION TIP**
Embed metadata entry in your production workflow. Complete fields at the final stage before LMS upload.

 Create/Outline →  Script/Storyboard →  Academic Review →  Record →  Edit →  Captions & Transcript →  Accessibility Review →  LMS Upload →  Technical Test →  Version Approval

4.5 LMS Integration and the Digital Learner Journey

An LMS should function as the organised learning environment for the micro-credential. It should guide learners through the programme, support interaction and assessment, document participation and provide information for course improvement. The *Digital Banking and Financial Innovation* syllabus already anticipates the use of an institutional LMS for teaching materials and updates. Other MICRO4ASIA programmes use online forums, digital learning resources, video guidance and platform-based activities as part of their learner experience. For example, *Applied Economic Data Analytics for Policy and Business* combines practical assignments, case work, forum participation and a capstone project. The LMS structure should reflect the learning architecture rather than the order in which files were created. Navigation and terminology should remain consistent across units. Learners should be able to identify what to do, in what order, by when, for how long and to what standard. A typical course area may contain:

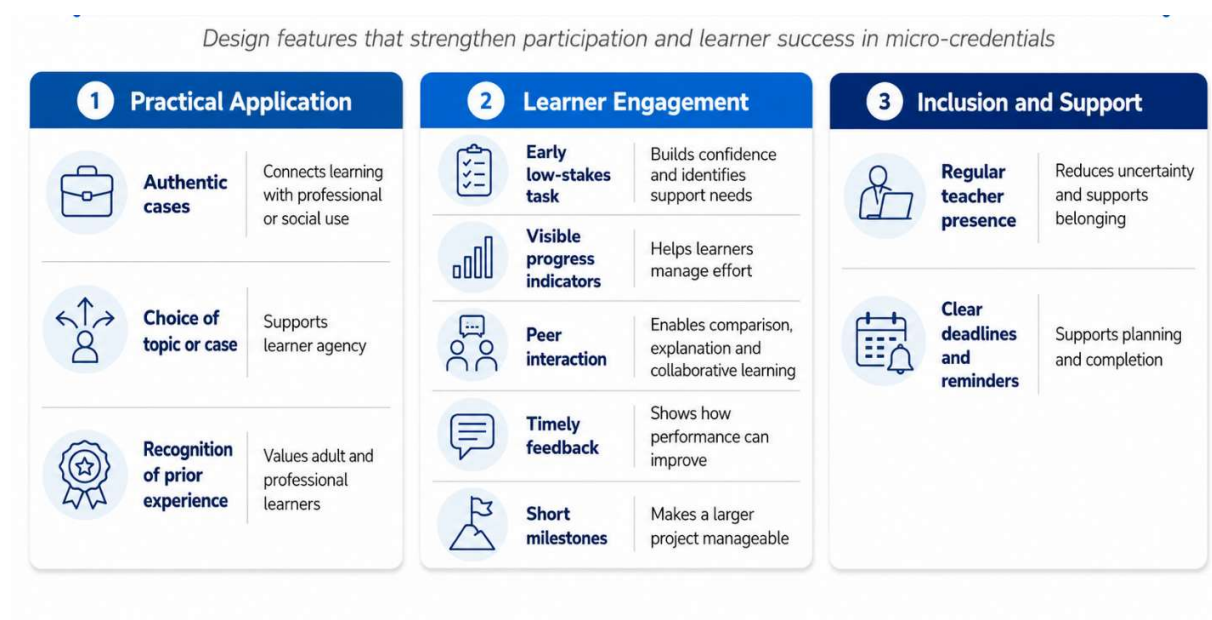


Content may be available from the start or released progressively, depending on the learning sequence and learner profile. Progressive release can support pacing and ensure that learners complete essential foundations, while full access offers greater flexibility for working professionals. A combined model may provide core materials in advance and release assessed tasks according to schedule. Completion conditions should be used only where they serve a clear pedagogical purpose. The LMS should support learner–content, learner–teacher and learner–learner interaction through resources, feedback, consultations, forums, peer review and collaborative tasks. Participation activities should have a defined learning purpose, and feedback should arrive early enough to improve subsequent performance. Automated feedback is suitable for basic quizzes, while complex analysis, design and professional judgement require qualitative feedback. LMS data can indicate delayed participation, recurring errors, incomplete resources or

possible dropout points, but should be interpreted alongside assessment results, learner feedback and instructor observations rather than treated alone. Personal data should be collected and used according to applicable institutional policies and legal requirements. Learners should understand which data are collected and why. The LMS and digital credentialing system may be separate. The institution should define how completion and assessment information is verified before a credential is issued and which system constitutes the authoritative record.

4.6 Inclusion, Learner Engagement and Practical Application

Inclusive delivery begins with the target-group analysis developed in Module 2 and should reflect differences in digital confidence, language, disability, employment status, location, connectivity, device access and available study time. A well-designed micro-credential provides a clear and predictable structure, plain-language instructions and transparent information on expected outputs, workload, deadlines and assessment criteria. Core information should be available in accessible formats where feasible, such as captions and transcripts for videos, diagrams supporting complex explanations, and asynchronous alternatives to live sessions. Low-bandwidth and mobile access may require compressed video, downloadable audio and lightweight documents. Working learners may also need advance notice, recordings or alternative activities, while group work should consider scheduling, time-zone and language differences. Engagement depends on relevance, clarity, social connection, feedback, confidence and visible progress. A structured welcome, platform-access check and early meaningful task can help learners understand expectations, connect the course with their needs and build momentum from the beginning. Engagement can be strengthened through:



Teacher presence should be visible but sustainable. A predictable weekly announcement, scheduled consultation and clear feedback timetable may be more effective than constant informal availability.



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4.7. Learning exercise



Learning Exercise: Redesign a Learning Unit for Blended or Online Delivery



Your task: Each institutional team should select one MICRO4ASIA syllabus and redesign one learning unit for blended or online delivery. The redesigned unit should specify the intended outcome, target learners, total workload, delivery mode, pre-session activity, live or interactive activity, independent practice, digital resources, assessment evidence, feedback method, accessibility arrangements and LMS organisation.



Intended outcome



Target learners



Total workload



Delivery mode



Pre-session activity



Live or interactive activity



Independent practice



Digital resources



Assessment evidence



Feedback method



Accessibility arrangements



LMS organisation

Template Components	Course-team decision
1. Micro-credential and learning unit	
2. Related learning outcome	
3. Target learners and digital assumptions	
4. Estimated workload	
5. Core teaching method	
6. Asynchronous preparation	
7. Live or facilitated activity	
8. Independent or group practice	
9. Video or digital resource	
10. Learner output	
11. Assessment and feedback	
12. LMS location and completion condition	
13. Accessibility formats	
14. Engagement risk and response	
15. Evidence to collect after delivery	

Digital-delivery review checklist

Review question	Yes	Partly	No
1 Does each activity contribute directly to a learning outcome?	☐	☐	☐
2 Is there sufficient learner practice for outcomes requiring application or creation?	☐	☐	☐
3 Are online and live components integrated into one sequence?	☐	☐	☐
4 Is the workload of digital activities included in the total course workload?	☐	☐	☐
5 Does each video have a clear objective and follow-up activity?	☐	☐	☐
6 Are captions, transcripts and accessible document formats available where required?	☐	☐	☐
7 Can core materials be accessed on common devices and slower connections?	☐	☐	☐
8 Is the LMS organised around the learner journey?	☐	☐	☐
9 Are instructions, deadlines and assessment criteria easy to locate?	☐	☐	☐
10 Is meaningful teacher and peer interaction included?	☐	☐	☐
11 Is timely feedback planned?	☐	☐	☐
12 Are technical and accessibility support responsibilities clear?	☐	☐	☐
13 Is completion information reliably transferred to the credential-issuing process?	☐	☐	☐
14 Will learner feedback and platform evidence inform revision?	☐	☐	☐
15 Revision required			

4.8 Key messages

Key Messages

1



Digital delivery should be **pedagogically designed**, not technically assembled.

2



Teaching methods should prepare learners to **demonstrate the intended outcomes**.

3



Video, online platforms and digital tools should **improve clarity, access, practice and feedback**.

4



The LMS should **guide learners** through a coherent learning journey.

5



Accessibility and learner engagement should be treated as **design requirements** throughout development.



Module 5: Assessment, Scoring and Feedback

MODULE FACTSHEET

Suggested duration:	180–240 minutes
Recommended format:	Conceptual introduction, analysis of MICRO4ASIA assessment plans, authentic-assessment design workshop, rubric development and peer review
Primary target group:	Academic staff responsible for course design, teaching and assessment
Additional users:	Quality assurance units, academic committees, LMS administrators, external assessors and staff responsible for issuing micro-credentials

Learning outcomes:

After completing this module, participants should be able to:

- 1 | Explain the principles of fair, valid, *reliable and transparent assessment in micro-credentials*.
- 2 | Design assessment strategies and tasks that align with learning outcomes and real-world relevance.
- 3 | Develop clear rubrics and scoring criteria that support consistent and objective evaluation.
- 4 | Provide feedback that is timely, constructive and actionable to support continuous improvement.
- 5 | Apply quality assurance practices in assessment and ensure integrity in scoring and certification.

5.1. Purpose of the Module

Assessment provides the evidence on which a micro-credential is awarded and must demonstrate that learners have achieved the stated outcomes to the required standard. Attendance, participation and completion of learning materials may support the learning process, but they do not independently confirm that learners can perform the knowledge, skill or professional task represented by the credential. European principles therefore require outcomes to be assessed against transparent and clearly defined criteria. In a short programme, assessment should remain proportionate to the workload while providing sufficient rigour to support trust, recognition and portability. A limited volume of learning calls for a focused assessment strategy rather than reduced academic expectations. By the end of this module, participants should be able to distinguish formative and summative assessment, select methods that generate valid evidence, design authentic tasks, construct transparent scoring systems and rubrics, establish defensible pass requirements, protect academic integrity, provide actionable feedback and prepare a complete micro-credential assessment plan.

5.2 Constructive Alignment and Valid Assessment Evidence

Constructive alignment requires consistency among learning outcomes, teaching activities, assessment tasks and assessment criteria. The design process should begin by asking what

performance would provide convincing evidence that a learner has achieved each outcome. The assessment task must require the same type and level of performance expressed in the outcome. Outcomes focused on identifying or explaining may be assessed through quizzes or structured responses, while those requiring application, analysis, evaluation or design usually require practical, case-based or project evidence. One assessment method may address several related outcomes, provided that the evidence supporting each outcome remains identifiable. This transparency is especially important when a micro-credential may later be considered for recognition or inclusion in a broader learning pathway. The MICRO4ASIA peer-review process identified weak constructive alignment in early programme drafts. Revised templates therefore linked outcomes, teaching activities and assessment methods explicitly, clarifying expectations and how achievement would be demonstrated.

From Weak Assessment Evidence to More Valid Evidence

Examples of stronger alignment between learning outcomes and assessment

 Learning outcome	 Weak assessment evidence	 More valid assessment evidence
 Analyse a financial statement and identify material performance risks	Multiple-choice definitions test	Analysis of an authentic or simulated financial statement
 Apply Python tools to clean a dataset	Written explanation of Python functions	Submission and execution of a documented Python script
 Evaluate a digital banking solution	Quiz on digital banking terminology	Structured evaluation of a case using defined customer, regulatory and risk criteria
 Design a social-media campaign	Attendance and class participation	Campaign proposal and sample digital content
 Develop a financial plan	Final written test	Integrated client plan with calculations and justification
 Demonstrate professional communication	Knowledge quiz	Presentation, client simulation or oral defence

Coverage of outcomes

Every learning outcome should be assessed at least once. Important outcomes should normally be practised and assessed through more than one activity, particularly when they involve complex or integrated performance. The matrix should show whether the relative importance of each outcome is reflected in the assessment system. An outcome representing the central professional



competence should not receive minimal weight while a basic knowledge quiz determines most of the final result. An assessment map helps identify omissions and over-assessment:



Assessment Matrix

Illustrative mapping of assessment tasks, learning outcomes and weighting

Assessment task	LO1	LO2	LO3	LO4	Weight
 Diagnostic quiz	Formative	–	–	–	0%
 Applied exercise	Assessed	Assessed	–	–	20%
 Case analysis	–	Assessed	Assessed	–	25%
 Capstone project	–	Assessed	Assessed	Assessed	45%
 Professional presentation	–	–	Assessed	Assessed	10%

 Example only — adapt to the size and purpose of the micro-credential.

Participation as assessment

Participation can support engagement and formative learning. Awarding substantial marks for general attendance or unspecified “active participation” creates problems of reliability and transparency. Participation should be scored only where it represents an assessable outcome, such as professional communication, collaborative problem-solving or peer review. The expected behaviour and evidence should then be described through explicit criteria. Instead of *Participation: 20%* a more transparent formulation would be: *Collaborative case contribution: 10%*. Learners are assessed on preparation, use of evidence, constructive contribution to group analysis and response to alternative viewpoints.

5.3 Formative, Summative and Authentic Assessment

Formative assessment supports learning while it is taking place. Its main purpose is to reveal current understanding, identify difficulties and guide improvement before the final judgement. Summative assessment determines whether the learner has achieved the required outcomes at the end of a unit or programme. It contributes to the decision to award the micro-credential. The same type of activity can serve either function. A case analysis completed during a workshop may be formative. A final case analysis graded against published criteria may be summative. A micro-credential

should normally include early formative opportunities. Learners need to understand the expected standard before completing the main summative task.

ASSESSMENT IN MICRO-CREDENTIAL PROGRAMMES

Key Principles and Practice

1. FORMATIVE AND SUMMATIVE ASSESSMENT

FORMATIVE ASSESSMENT	SUMMATIVE ASSESSMENT
Diagnostic quiz	Final knowledge test
Draft proposal	Assessed final project
Practice exercise	Assessed practical task
Instructor questioning	Structured oral exam
Peer review	Final portfolio
Trial presentation	Final presentation or defence

2. AUTHENTIC ASSESSMENT

Learners apply competence in a realistic professional, academic or community context.

Typical formats: case analysis, simulation, project, prototype, portfolio, dashboard, policy brief, oral defence.

3. FROM WEAK TO STRONGER EVIDENCE

LEARNING OUTCOME	WEAK EVIDENCE	STRONGER EVIDENCE
Financial-statement analysis	Definitions test	Analysis of an authentic or simulated statement
Clean a dataset	Written explanation	Documented Python script
Design a financial plan	Final written test	Integrated client plan with calculations and justification

4. BALANCING KNOWLEDGE AND APPLICATION

Short quiz	checks key terms and principles.
Individual task	demonstrates personal competence.
Group project	shows integration and collaboration.
Presentation / defence	tests reasoning and communication.
Reflective task	supports reflection and further development.

The final assessment should reflect the highest-level outcome.

5. MICRO4ASIA PRACTICE EXAMPLES

Digital Banking and Financial Innovation	practical banking task + service or UX/UI prototype.
ICT for Business	social-media task, e-business analysis, AI-enabled solution.
Financial Analysis	quizzes + investment-analysis project + financial dashboard.

6. INDIVIDUAL AND GROUP EVIDENCE

If group work is used, the assessment plan should still show individual achievement.

Personal project section	Individual reflection	Contribution record	Version history	Questions during presentation	Individual oral defence
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A group grade alone may hide differences in achievement.



5.4 Scoring Systems, Rubrics and Pass Requirements

A scoring system converts assessment evidence into a transparent judgement. It should explain how individual tasks contribute to the final result, how quality levels are distinguished and which conditions must be met for the micro-credential to be awarded.

Assessment weighting

Assessment weight should reflect the importance and complexity of the outcome, the amount of learner work involved and the strength of the evidence generated. The sum of all weighted components must equal 100%. The same syllabus should contain one definitive assessment plan. This point is relevant to the *Corporate Finance for Non-Finance Managers* proposal. One section presents weekly quizzes, an assignment, participation and a final examination with weights of 25%, 25%, 20% and 30%. A later assessment table presents participation, assignments, a financial-plan mini-project and a quiz with weights of 20%, 30%, 40% and 10%. The second model appears more consistent with the programme's applied orientation, but the coexistence of two plans creates ambiguity and should be resolved before delivery. The assessment plan should state:



Analytic rubrics

A rubric describes the criteria and quality levels used to assess performance. It supports transparency, consistent grading, useful feedback and learner self-assessment. An **analytic rubric** evaluates several criteria separately. It is well suited to projects, case analyses, practical tasks and presentations. A **holistic rubric** gives an overall judgement of performance. It can be efficient, although it provides less diagnostic information and may be more difficult to apply consistently. Criteria should describe the quality of the learner's performance. Expressions such as "excellent," "good" and "poor" are insufficient unless the substantive difference among levels is explained. Rubrics should be shared before the assessed task begins. Learners may use them to review drafts,

while teachers and external assessors may use them to improve consistency. A sample analytic rubric for a digital financial-service capstone project is shown below.

Sample Analytic Rubric					
Criterion	Weight	★ Excellent	✓ Competent	⚠ Developing	✗ Insufficient
1. Problem and user-need analysis	20%	Problem is precisely defined and supported by relevant evidence.	Problem and main user needs are clearly identified.	Analysis is partly developed or weakly evidenced.	Problem is unclear or unsupported.
2. Technical and operational feasibility	20%	Solution is coherent, realistic and technically well justified.	Solution is feasible with minor limitations.	Important feasibility issues remain unresolved.	Solution is impractical or inadequately specified.
3. Regulatory, ethical and risk analysis	20%	Relevant requirements and risks are comprehensively integrated.	Main requirements and risks are addressed.	Analysis is partial or largely descriptive.	Material requirements or risks are omitted.
4. Quality and innovation of solution	25%	Solution is well designed, user-centred and demonstrates meaningful innovation.	Solution addresses the need and is logically designed.	Solution is underdeveloped or only partly addresses the need.	Solution does not respond adequately to the defined problem.
5. Communication and justification	15%	Evidence and decisions are presented clearly and defended convincingly.	Main decisions are clearly explained.	Explanation lacks clarity or sufficient justification.	Work is unclear and key decisions cannot be justified.

Pass thresholds

There is no single universal pass threshold for all micro-credentials. The threshold should follow national and institutional regulations and be appropriate to the level, field and consequences of the credential. Several MICRO4ASIA syllabi propose a minimum overall achievement of 70%, including *Corporate Finance for Non-Finance Managers* and *FinTech and Blockchain: Innovations in Digital Finance*. A 70% rule can provide a clear institutional standard, provided that its rationale and relationship with the grading scale are documented. An overall percentage may be insufficient where the programme certifies several distinct competences. A learner could obtain a high aggregate score while failing the central practical task. For this reason, the assessment rules may combine:

- an overall pass threshold of 70%; and
- a minimum of 60% in the capstone or practical assessment; and
- demonstrated achievement of every essential learning outcome.

This model prevents strong quiz performance from compensating fully for failure to demonstrate the skill represented by the credential. The rules should also clarify rounding, late submission, absence, reassessment, resubmission and the effect of academic-integrity violations.

Pass/fail and graded credentials



A micro-credential may use a numerical grade, achievement category or pass/fail result. The chosen model should be stated transparently. A pass/fail model may be appropriate where the main purpose is to certify achievement of a competence standard. A graded model may provide more information for recognition or progression. Where grades are issued, the credential or supplementary document should identify the scale and the result achieved. The European standard elements include the grade achieved (including pass/fail where relevant) and require the type of assessment to be stated.

5.5 Academic Integrity, Identity Verification and Fairness

The credibility of a micro-credential depends on confidence that the assessed work represents the achievement of the identified learner. Academic integrity encompasses honest authorship, appropriate use of sources, accurate representation of data, responsible collaboration and compliance with the stated rules for digital tools and artificial intelligence. The course documentation should explain:



Designing for integrity

Academic integrity should be supported through assessment design as well as enforcement. Authentic and contextualised tasks are more difficult to copy than generic questions. Staged submission enables the teacher to observe how work develops. Oral questioning can verify that the learner understands and owns the submitted work. Drafts, activity logs, code histories and version records provide evidence of the production process. For group projects, each learner may submit an individual contribution statement and participate in a short defence. For data or programming tasks, learners may be required to explain selected decisions or modify part of the solution during a supervised session.



Generative AI

The institution or course team should establish a clear policy on generative AI. A complete prohibition may be appropriate for tasks designed to measure unaided performance. In other tasks, AI may be permitted as a professional tool. Where use is permitted, learners should normally disclose the tool used, the purpose for which it was used, the relevant prompts or instructions, how the generated output was checked, revised and incorporated, which parts of the submitted work remain the learner's own analysis or production. Assessment criteria should continue to focus on the learning outcome. A learner should be able to explain, verify and take responsibility for the submitted work.

Identity verification

The European standard elements treat supervision and identity verification as optional but relevant information. They distinguish among unsupervised assessment without identity verification, supervised assessment without identity verification, supervised online assessment and onsite assessment with identity verification. The intensity of identity verification should be proportionate to the purpose and risk of the assessment. Data collection and online supervision should respect applicable privacy and institutional rules. Intrusive monitoring should not be used where a less restrictive measure can provide sufficient confidence.

Verification Measures by Assessment Context

	Low-stakes formative quiz	Authenticated LMS account
	Online individual assignment	LMS authentication, declaration of authorship and version history
	Online examination	Identity check, supervised session and controlled access
	Practical digital task	Authenticated submission and oral verification
	Onsite assessment	Institutional identification and attendance record
	Professional simulation	Assessor observation and identity confirmation
	Recognition of prior learning	Formal identity check, evidence verification and assessment interview



Fairness and consistency

All learners should be assessed against the same published outcomes and criteria, while reasonable accommodations may be provided to ensure equitable participation. Fairness may require accessible formats, additional time, assistive technology, alternative means of demonstrating an outcome or scheduling adjustments. An accommodation should preserve the substance and standard of the learning outcome. Consistency can be strengthened through assessor guidance, calibration exercises, use of common rubrics, double marking of selected work and review of unusual grade distributions. Where external practitioners contribute to assessment, they should receive the learning outcomes, rubric and decision rules. Professional expertise does not remove the need for consistent academic criteria. An appeal process should address procedural error, incorrect application of criteria and relevant circumstances. It should not operate as an automatic second assessment whenever a learner disagrees with the result.

5.6 Feedback, Assessment Review and Practical Application

Feedback helps learners understand the difference between their current performance and the required standard. It should also help course teams evaluate whether teaching, workload and assessment functioned as intended. Effective feedback addresses three questions:

Where am I going? The learning outcome, task and criteria establish the expected performance.

How am I progressing? Feedback explains the strengths, limitations and current level of the learner's work.

What should I do next? Feedback identifies specific actions for improvement or further learning.

Characteristics of useful feedback

Feedback should be timely, specific, connected with the published criteria and proportionate to the task. Comments such as “good work” or “needs improvement” provide limited guidance. A stronger feedback comment would read:

The financial ratios were calculated accurately and the dashboard is clearly organised. The interpretation remains mainly descriptive. Revise the conclusions by identifying the two most material risks and linking each recommendation to evidence from the trend analysis.

This comment recognises achievement, identifies the gap and specifies the next action.

Feedback to the programme team

Assessment results can reveal weaknesses in the course design. If most learners fail one outcome, the team should examine the clarity of the outcome, prerequisite knowledge, teaching activities, workload, task instructions, assessment criteria and available practice. A very high success rate may indicate effective teaching and learner selection. It may also indicate that the assessment is insufficiently demanding. Interpretation requires comparison with the quality of submitted evidence, learner feedback and assessor observations. The European quality principles require internal quality assurance to consider learner feedback and feedback from peers and



stakeholders. MICRO4ASIA also requires the developed courses to be tested with learners and refined on the basis of the feedback collected.

Forms of Feedback

	1 Automated quiz feedback	Immediate correction of basic concepts and misconceptions.
	2 Written rubric feedback	Projects, reports, portfolios and case analyses.
	3 Annotated submission	Detailed comments on calculations, text, code or design.
	4 Audio or video feedback	Complex explanation and personalised guidance.
	5 Live consultation	Project development, oral performance and remediation.
	6 Peer feedback	Draft review, alternative perspectives and development of evaluative judgement.
	7 Self-assessment	Reflection against criteria before submission.
	8 Workplace or external-expert feedback	Professional relevance and authenticity.

5.7 Learning exercises



Exercise 1: Assessment Matrix and Analytic Rubric



Each institutional team should select one MICRO4ASIA micro-credential and complete the following matrix.

Learning outcome	Assessment task	Formative preparation	Evidence produced	Criteria	Weight	Minimum standard	Feedback method



The team should then prepare an analytic rubric for the principal applied assessment. The rubric should contain between three and six criteria, clearly differentiated performance levels and a transparent relationship with the final score.



Assessment review checklist

Review question	Yes	Partly	No	Revision required
1. Is every learning outcome assessed?	☐	☐	☐	
2. Does each task require the type of performance stated in the outcome?	☐	☐	☐	
3. Are formative opportunities provided before major summative tasks?	☐	☐	☐	
4. Does the final assessment reflect the highest-level outcomes?	☐	☐	☐	
5. Are authentic or applied tasks used where appropriate?	☐	☐	☐	
6. Is individual achievement identifiable in group work?	☐	☐	☐	
7. Is one definitive assessment plan used throughout the syllabus?	☐	☐	☐	
8. Do the assessment weights total 100%?	☐	☐	☐	
9. Are criteria and rubrics available before assessment?	☐	☐	☐	
10. Is the pass threshold institutionally justified?	☐	☐	☐	
11. Must learners pass any essential practical component separately?	☐	☐	☐	
12. Are grading, resubmission and reassessment rules clear?	☐	☐	☐	
13. Are academic-integrity and AI-use expectations explicit?	☐	☐	☐	
14. Is the identity-verification method proportionate and documented?	☐	☐	☐	
15. Are accessibility and reasonable accommodations addressed?	☐	☐	☐	
16. Is feedback timely, criterion-based and actionable?	☐	☐	☐	
17. Will assessment results be used to revise the programme?	☐	☐	☐	



Use this checklist to review one micro-credential assessment plan.

5.8 Key messages

Key messages





Part III — Practical Application

Part III translates the principles introduced in the preceding modules into practical approaches for course development, review, delivery and institutionalisation. It draws directly on the micro-credential syllabi prepared by the Vietnamese and Lao partner universities and on the experience generated through peer review and revision. The examples are presented as learning resources rather than as models to be copied without adaptation. Each syllabus reflects a particular discipline, learner profile, institutional environment and national credit system. Their value lies in showing how common design principles can be applied in different ways, where strong solutions have emerged and where further refinement may improve transparency, alignment or feasibility.

1. Worked Examples from MICRO4ASIA Partner Universities

The MICRO4ASIA syllabi cover a broad range of subjects, including finance, banking, financial technology, data analytics, artificial intelligence, cybersecurity, marketing, innovation, leadership and sustainability. The examples below illustrate different dimensions of effective micro-credential design.

AI Application for Finance: Connecting a Broad Trend with Specific Professional Tasks

The BUH micro-credential *AI Application for Finance* demonstrates how a broad technological theme can be translated into a focused applied programme. Its teaching aim connects artificial intelligence with identifiable financial-sector tasks. Learners are expected to explain fundamental AI and machine-learning concepts, apply tools to collect and analyse financial data, and develop a narrow AI application using Streamlit. The syllabus specifies concrete applications including credit scoring, fraud detection, bankruptcy prediction, financial-data collection from the World Bank and Yahoo Finance, and the development of simple financial applications. The progression is coherent. Learners first acquire conceptual foundations, then apply analytical techniques to financial data, and finally develop a practical digital output. The content is explicitly mapped to three learning outcomes, which makes the relationship between knowledge acquisition and practical performance visible. The main design lesson is the importance of narrowing an emerging topic. A micro-credential titled simply *Artificial Intelligence* would be too broad for a small volume of learning. In this syllabus, AI is framed through a specific disciplinary context and a manageable set of learner performances. Before institutional approval, the course team should verify whether the target learners possess the programming, statistics and financial knowledge required to develop an application within the proposed workload. A diagnostic activity or preparatory resource may be needed for learners without prior technical experience.



Digital Banking and Financial Innovation: Constructive Alignment and Authentic Performance

The syllabus of *Digital Banking and Financial Innovation* (also at BUH) provides a strong example of practical and active learning. The learning experience combines real-world case analysis, group discussion, hands-on use of digital tools, problem-based learning, design thinking, industry talks and a capstone project. Each method has a defined pedagogical purpose. Case studies connect theory with market practice. Hands-on sessions allow learners to use digital platforms and analytical tools. Design-thinking activities focus attention on customer needs and service design. The capstone integrates the course by requiring learners to design and evaluate a digital financial solution that addresses customer requirements, operational efficiency, regulatory compliance and risk management. The assessment structure reflects the applied character of the course. Knowledge and analytical assessment account for 30%, practical skills and innovation for 40%, and communication and collaboration for 30%. Learners therefore need to demonstrate conceptual understanding, practical application and the ability to communicate and defend their proposed solution. This syllabus illustrates constructive alignment across learning outcomes, activities and assessment. Its principal area for further development is the use of analytic rubrics. The syllabus itself recognises that explicit performance criteria would improve assessment fairness and transparency. A suitable rubric could distinguish the quality of customer-need analysis, technical and operational feasibility, regulatory and risk assessment, innovativeness, and professional communication.

FinTech and Blockchain: Transparent Workload and an Integrated Mini-project

The micro-credential *FinTech and Blockchain: Innovations in Digital Finance* at BUH illustrates how an intensive programme can accommodate a diverse audience while maintaining a clearly applied orientation. The target group includes undergraduate and graduate students, early-career professionals, entrepreneurs, policymakers, bankers and ICT practitioners. Advanced technical knowledge is not required. The workload is presented transparently. The 48 hours include 18 hours of classroom activity, ten hours of independent study, eight hours of practical assignments, ten hours of mini-project work and two hours of assessment. This breakdown is more informative than a credit figure alone because it shows how learner effort is distributed.

The principal assessment is the mini-project *Design and Risk Analysis of a Blockchain-Based FinTech Solution*. Learners develop and present a solution using blockchain, digital currencies, decentralised finance or smart contracts while considering technological architecture, regulation and risk. The overall assessment plan combines activities, assignments, the mini-project and a quiz, with a minimum achievement threshold of 70%. The programme offers a strong example of authentic assessment and contextualisation through ASEAN and Lao financial-sector cases. Its broad target group nevertheless requires careful instructional planning. Policymakers, business students, bankers and ICT practitioners may enter with different knowledge and expectations. A common introductory unit, diagnostic task or differentiated case activities can help maintain access without lowering the expected learning standard. Some outcome formulations would also benefit from revision. Verbs such as *understand* could be replaced with observable performances such as



explain, compare, analyse or evaluate. The broad attitude outcome covering critical thinking, problem-solving and communication could be integrated into the criteria for the mini-project rather than treated as one general learning outcome.

Corporate Finance and Investment Analysis: Mapping Outcomes to Content and Assessment

The Champasack University course *Corporate Finance and Investment Analysis* uses a constructive-alignment table to connect outcomes, content, learning activities and assessment. Its first outcome requires learners to explain corporate-finance concepts and apply analytical tools to assess a firm's financial position. This is supported by content on financial statement analysis and assessed through a report based on real-world data. The second outcome focuses on evaluating investment projects, risk, return and cost of capital and is supported by case analysis and a capital-budgeting project with formative feedback. The third addresses financing alternatives, capital structure, payout policy and working-capital strategy. The syllabus demonstrates that constructive alignment can be made visible within the course documentation rather than remaining implicit in the teacher's planning. Its stated target group remains broad, including students from any field, students from relevant disciplines and applicants from outside the institution. The programme team should clarify whether the same level of financial analysis is expected from all participants and whether learners without accounting or finance experience require preparatory support. The syllabus also illustrates the importance of matching the assessment format to the outcome. Financial analysis is assessed through an analytical report, capital budgeting through an applied project and strategic finance through a decision-oriented written task. Different outcomes therefore generate different forms of evidence.

Risk Management: External Professional Expertise and Cross-disciplinary Access

The UEH course *Risk Management* micro-credential is designed for learners from business, economics, public policy, finance and accounting, while also remaining open to students from other disciplines, recent graduates and working professionals. It recommends basic familiarity with organisational structures and business concepts while avoiding highly restrictive formal prerequisites. The programme is delivered by a senior practitioner from the Institute of Internal Auditors Vietnam. This creates an opportunity to integrate professional examples, current risk-management practice and external sectoral expertise into course delivery. The design lesson extends beyond the involvement of a guest lecturer. External expertise should contribute directly to learning outcomes, authentic cases and assessment. The institution should retain responsibility for academic coherence, assessment standards and quality assurance. The course team should also ensure that broad outcomes concerning awareness, teamwork and communication are translated into observable evidence. For example, learners might be asked to construct a risk register, assess likelihood and impact, recommend mitigation actions and present the conclusions to a simulated management team.

The NEU Data-science Pathway: Progression, Prerequisites and Iterative Review

The NEU portfolio of six courses demonstrates how several micro-credentials can form a progressive learning pathway. The sequence covers mathematical foundations, programming, data



preparation, visualisation, predictive modelling and prompt engineering. This structure supports both stand-alone participation and cumulative learning. A learner may complete one targeted course or progress through several related micro-credentials where prerequisites and progression are clearly specified.

The peer-review process improved the pathway by clarifying prerequisites, identifying preparatory materials, correcting documentation and specifying assessment formats. Programming for Data Science was identified as a prerequisite for later analytical work, while online preparation was made available for learners requiring additional programming or mathematical support. Reviewers also raised concerns about workload and the suitability of demanding content for beginners. This example shows that quality review contributes substantively to course development. It can expose assumptions about prior knowledge, reveal excessive scope and strengthen the relationship between assessment and intended performance. The pathway also demonstrates that stackability requires more than placing several courses under a shared title. The sequence should contain explicit prerequisites, progression in complexity, limited duplication and a clear account of the cumulative competence achieved.

2. Comparative Analysis of Selected Syllabi

The selected syllabi demonstrate considerable disciplinary variety and different stages of design maturity. Their comparison reveals a shared movement toward outcome-based, applied and learner-centred provision, accompanied by differences in target-group precision, workload conventions, assessment practices and institutional terminology.

Selected MICRO4ASIA Courses: Design Strengths and Areas for Continued Attention

1 	AI Application for Finance	 Principal design strength Clear progression from conceptual AI knowledge to financial-data analysis and application development.	 Area requiring continued attention Prerequisites and feasibility of technical performance within the proposed workload.
2 	Digital Banking and Financial Innovation	 Principal design strength Strong constructive alignment, active learning and authentic capstone assessment.	 Area requiring continued attention Development of detailed analytic rubrics and transparent individual evidence in group work.
3 	FinTech and Blockchain	 Principal design strength Transparent workload structure, regional contextualisation and integrated applied project.	 Area requiring continued attention Broad target group and refinement of some learning-outcome formulations.
4 	Corporate Finance and Investment Analysis	 Principal design strength Explicit mapping of outcomes, content, methods and assessment.	 Area requiring continued attention Greater precision concerning learner entry level and target-group segmentation.
5 	Risk Management	 Principal design strength Cross-disciplinary accessibility and involvement of professional expertise.	 Area requiring continued attention Translation of broad skills and awareness statements into assessable performance.
6 	Data-science Pathway	 Principal design strength Progressive and potentially stackable structure supported by peer review.	 Area requiring continued attention Consistent prerequisite logic, workload calibration and clear articulation of the resulting learning pathway.



Several findings emerge from the comparison. The strongest syllabi begin with a practical capability rather than a list of topics, giving course teams a clear basis for selecting content, activities and assessment. Constructive alignment is most visible where outcomes are explicitly mapped to learning units, learner tasks and assessment evidence. The syllabi also demonstrate strong use of applied assessment through projects, case analyses, dashboards, prototypes, software applications and professional presentations, while knowledge tests remain appropriate for foundational concepts. Target-group definitions vary in precision. Broad access can be maintained when entry requirements, diagnostic activities and learner support are clearly specified. Workload and credit information also require greater consistency because Vietnamese credits, Lao institutional credits, total hours and ECTS references appear in different combinations. Comparability depends on separating notional workload, national credit value and any authorised conversion basis. A common MICRO4ASIA approach therefore rests on transparency and design coherence while allowing adaptation to different disciplines and institutions.

3. Common Design Challenges and Recommended Solutions

The peer-review process and comparative analysis reveal several recurring design challenges. These challenges are typical of the transition from conventional short-course descriptions toward transparent and recognisable micro-credentials.

Common challenge	Why it matters	Recommended response
Target group defined too broadly	Prior knowledge, examples, workload and support may be inappropriate for parts of the cohort	Define a primary target group, state prerequisites and use diagnostics or preparatory materials for additional learner groups
Teaching aims and learning outcomes are mixed	The credential does not clearly communicate what the learner can demonstrate	Keep the aim concise and express three to five outcomes as observable learner performances
Excessive content for a small workload	Learners receive superficial coverage and cannot practise the intended skills	Prioritise essential outcomes, remove non-essential topics and retain additional material as optional enrichment
Vague or affective outcome language	Achievement cannot be assessed consistently	Replace <i>understand</i> , <i>be aware of</i> or <i>develop confidence</i> with observable actions and integrate attitudes into task criteria where relevant
Credit and workload inconsistency	Learners and receiving institutions cannot interpret the volume of learning	Calculate all learner activities, report total hours and national credits separately, and document any ECTS reference
Assessment does not match the outcome	The institution may award a credential without valid evidence of the certified competence	Use practical, case-based or project assessment for outcomes requiring application, analysis, evaluation or creation

Several conflicting assessment plans appear in the same syllabus	Learners and assessors cannot identify the applicable rules	Maintain one approved assessment plan with weights totalling 100%, clear pass conditions and version control
Rubrics and pass requirements are incomplete	Grading becomes difficult to interpret and apply consistently	Publish criteria, performance levels, thresholds, reassessment rules and any mandatory practical component
Group work provides insufficient individual evidence	A group result may conceal differences in learner achievement	Add individual tasks, personal reflections, oral defence, version histories or contribution records
Stakeholder participation remains informal	Programme relevance depends on individual relationships and may not survive staff or project changes	Document consultations, establish advisory or review arrangements and involve stakeholders across design, delivery and evaluation
Digital delivery is treated as file distribution	Online learners receive limited interaction, support and accessibility	Design an integrated learner journey with structured LMS navigation, concise digital resources, activities, feedback and accessible formats
Recognition claims are too broad	Learners may misunderstand the academic or professional value of the award	State the formal status of credits, qualification level, stackability and recognition possibilities accurately
Credential documentation is incomplete	External parties cannot understand or verify the achievement	Record outcomes, workload, assessment, result, issuer, quality assurance, version and authenticity information

These challenges should be addressed through the complete development process. A wording problem may indicate a deeper design problem. For example, difficulty writing a measurable outcome may reveal uncertainty about the course's actual purpose. An inconsistent workload may reveal excessive content. A weak assessment task may expose insufficient learner practice. The MICRO4ASIA peer-review workshop was designed specifically to identify vague outcomes, unbalanced workloads, unclear assessment formats and limited stakeholder alignment before the programmes enter implementation. Review should therefore remain focused on the coherence of the complete learning experience rather than on technical compliance alone.

4. Guidance for Adapting Materials to Different Disciplines

The principles of micro-credential design apply across disciplines. Every programme should identify a need, define its learners, formulate outcomes, calculate workload, provide valid assessment and operate within a quality-assured institutional process. Their practical application must reflect disciplinary knowledge, professional practice and the type of evidence through which competence can be demonstrated.



Finance, Banking and Accounting

Micro-credentials in finance and banking should connect technical concepts with decision-making. Learners may need to analyse financial statements, evaluate investment projects, prepare financial plans, assess risk or interpret regulatory requirements. Authentic resources include financial reports, market data, client profiles, bank processes, investment proposals and regulatory cases. Assessment may take the form of an analytical report, capital-budgeting decision, client plan, risk assessment, dashboard or oral defence. The course should distinguish between conceptual, calculation-based and advisory outcomes. A learner may calculate a financial ratio accurately and still require additional competence to interpret it and recommend a managerial response. Current financial data, regulation and sector practice should be reviewed regularly. External practitioners can contribute valuable cases and feedback, while the university retains responsibility for academic standards.

Data Science, Information Technology and Artificial Intelligence

Technical micro-credentials require careful attention to prerequisites, digital infrastructure and reproducibility. Learners may need access to appropriate software, datasets, computing capacity and technical support. Outcomes should specify the task and technology at a realistic level. A short programme may enable learners to clean a dataset, construct a dashboard, implement a basic model or develop a narrow application. It is unlikely to support mastery of an entire programming language, advanced statistics and several complex AI methods within a small workload. Assessment should normally include an executable or demonstrable output. Relevant evidence includes code, data-processing workflow, model, application, technical documentation and an explanation of design decisions. Learners should also demonstrate that they can interpret results and recognise limitations. Data protection, bias, cybersecurity, intellectual property and responsible use of generative AI should be integrated where relevant. Technical correctness alone may be insufficient where the application has financial, social or organisational consequences. The *BUH AI Application for Finance* syllabus illustrates this combination by connecting machine learning, external data sources and Streamlit development with financial use cases.

Management, Entrepreneurship, Marketing and Design

These fields often require learners to work with incompletely defined problems, multiple stakeholders and competing solutions. Appropriate methods include design thinking, customer discovery, simulations, business cases, market experiments, role play and project work. Assessment may involve a business model, marketing campaign, innovation proposal, customer journey, leadership simulation or prototype. Criteria should distinguish creativity from unsupported novelty. A strong solution should also demonstrate evidence, feasibility, ethical awareness and responsiveness to user needs. Team projects can reflect professional practice, but individual achievement should remain visible. Personal reflection, oral defence and individual responsibility for defined parts of the project can supplement the group output. Outcomes concerning leadership, confidence, collaboration or entrepreneurial mindset should be translated into observable behaviours. A learner may, for example, facilitate a structured team decision,



respond constructively to feedback, revise a prototype after testing or justify a strategy under uncertainty.

Sustainability, Public Policy and Societal Challenges

Micro-credentials in sustainability and policy should recognise the interdisciplinary and context-dependent nature of the subject. Learners may need to combine economic, environmental, social, regulatory and institutional evidence. Suitable assessment tasks include policy briefs, stakeholder maps, sustainability plans, impact assessments, scenario analyses and local development proposals. Stakeholder engagement is especially important because relevant knowledge may be distributed among public authorities, firms, civil society, communities and technical experts. The course should represent these perspectives while maintaining a clear scope. Local cases increase relevance, but outcomes should remain sufficiently transparent to be understood beyond one location. A learner might be asked to evaluate a local environmental challenge using a transferable framework or to design a context-specific intervention based on clearly stated principles.

Cross-disciplinary Adaptation

Some MICRO4ASIA programmes combine finance, technology, regulation and management. Interdisciplinary design can strengthen relevance while creating a risk of excessive breadth. The programme team should identify the integrative performance that connects the disciplines. In digital banking, this may be the design and evaluation of a financial service. In sustainable finance, it may be the assessment of an investment using financial and environmental criteria. In AI for finance, it may be the development and interpretation of a narrow analytical application. Different disciplinary components should contribute to this integrated performance. A course should avoid becoming a sequence of disconnected introductions to several fields. The teaching team may include experts from different disciplines, but the learner should experience one coherent programme with shared outcomes, terminology and assessment.

5. Guidance for Trainers and Workshop Facilitators

Capacity building in micro-credential development should produce usable institutional outputs. Participants should leave a workshop with an improved syllabus, completed design matrix, assessment plan, workload calculation or institutional action plan. The trainer's role is therefore to combine conceptual explanation with facilitated application.

Preparing the Training

Before the session, trainers should identify the participants' roles, prior experience and institutional context. Academic staff, quality officers, administrators, digital staff and university leaders engage with different aspects of micro-credentials. Mixed institutional teams are particularly valuable because they allow academic and operational issues to be considered together. Participants should submit or select a draft syllabus in advance. Real proposals provide a stronger basis for learning than generic examples because participants must make decisions concerning actual learners, outcomes, resources and institutional rules. The trainer should review these materials and identify recurring issues. Examples may include broad target groups, vague



outcomes, unbalanced workload, incomplete assessment or unclear credit terminology. The examples used during training should be anonymised where necessary and discussed constructively. Training resources should be accessible in advance and organised through a clear digital environment. Participants should understand the workshop purpose, schedule, expected preparation and outputs.

Facilitating the Learning Process

Each training block should follow a practical sequence:

concept and rationale → MICRO4ASIA example → guided analysis → institutional application
→ peer feedback → revision

Conceptual input should remain focused. Participants need sufficient explanation to make an informed decision, followed by time to apply the principle to their own programme. Questions should encourage participants to explain design logic. Instead of asking whether a learning outcome is “good,” the trainer may ask:

What learner performance does this outcome describe?

Which activity prepares the learner to demonstrate it?

What evidence will the assessor examine?

Can this be achieved within the stated workload?

Would another institution understand the meaning of the credential?

Trainers should create an environment in which revision is viewed as a normal part of course development. Peer review should remain specific, criterion-based and respectful. Comments should identify the issue, explain its significance and suggest the direction of improvement.

Working with Diverse Participants

Some participants may be experienced teachers but unfamiliar with workload calculation or qualification frameworks. Administrative staff may understand approval and learner records while having limited curriculum-design experience. IT staff may be highly competent in digital production but less familiar with learning outcomes and assessment. The trainer should make these differences productive. Academic staff can explain the intended competence, quality officers can test transparency, administrators can identify implementation requirements, and technical staff can assess digital feasibility. Language and terminology should be managed carefully. Terms such as *credit*, *certificate*, *qualification*, *module* and *assessment* may have different meanings across institutions and national systems. The trainer should clarify the intended meaning and invite participants to explain the closest national equivalent. EU instruments should be presented as reference frameworks to support comparison and trust. They should be interpreted alongside national law, institutional autonomy and local practice.



Structuring Peer Review

Peer review works most effectively when all teams use a common set of questions. Reviewers should first understand the purpose and target group of the proposal. They should then examine the internal chain from need to outcome, content, teaching, assessment and workload. Finally, they should consider feasibility, quality assurance, recognition and credential documentation. The review should distinguish among:

required corrections, where the proposal is inconsistent, incomplete or potentially misleading;

substantive recommendations, where a design change would strengthen quality or feasibility;

optional suggestions, where an alternative approach may be considered without affecting approval readiness.

The course team should document its response to each significant comment. It may accept the recommendation, address the underlying issue differently or provide a reasoned explanation for retaining the original approach.

Following Up after the Workshop

Capacity building should continue after the formal training session. Teams may require mentoring while revising their syllabus, preparing institutional approval or developing digital resources. A follow-up meeting should examine whether the workshop outputs have been applied. It can focus on unresolved design issues, institutional barriers and preparation for pilot delivery. The trainer should also record lessons from the process. Recurring questions, successful solutions, revised templates and examples of improvement are valuable inputs for D2.3.

6. Monitoring and Evaluation of Capacity-building Activities

Monitoring and evaluation should determine whether capacity-building activities were delivered as planned, whether participants acquired the intended competences, whether those competences were applied to actual micro-credentials and whether institutional practices changed. Attendance and participant satisfaction provide useful information, though they do not demonstrate capacity development on their own. A comprehensive framework can examine four connected dimensions.

Dimension	Illustrative indicators	Evidence
Participation and delivery	Number and profile of participants, completion of training, engagement in workshops and peer review	Registration records, attendance, LMS participation and activity reports
Learning and competence development	Improvement in understanding of outcomes, workload, assessment, digital delivery, QA and recognition	Pre- and post-training self-assessment, knowledge checks, exercises and trainer observation
Application to course development	Number and quality of syllabi, constructive-alignment matrices,	Syllabus review rubric, peer-review reports,

	assessment plans, digital resources and completed revisions	revised documents and approval dossiers
Institutionalisation and use	Courses approved and delivered, staff and units assigned, QA procedures adopted, learners enrolled, recognition and credentialing arrangements introduced	Institutional decisions, course records, learner data, evaluation reports and policy documents

The Capacity Building Plan sets several quantitative targets: at least 36 course syllabi, 36 trained staff with a minimum of six from each Vietnamese or Lao partner institution, one implemented micro-credential per institution, one finalised toolkit and two regional workshops for policymakers and higher education agencies. These targets should be supported by quality indicators, since the number of syllabi alone does not demonstrate measurable outcomes, realistic workload or valid assessment. Each proposal should therefore be evaluated through a common review rubric covering target-group clarity, evidence of need, outcome quality, modular coherence, constructive alignment, workload accuracy, assessment validity, digital-delivery readiness, quality assurance, recognition information and feasibility. Programmes may then be classified as developmental drafts, ready for peer review, ready for institutional approval, approved for pilot delivery or validated. These stages indicate whether substantial design work remains, essential components are complete, institutional requirements have been met, implementation has been authorised, or pilot evidence and revisions have been reviewed.

Evaluation Instruments

A pre-training questionnaire can establish participants' initial confidence and experience. The same questions repeated after training can identify perceived progress, while a short applied exercise provides stronger evidence of learning. Participant feedback should address relevance, clarity, workload, facilitation, digital access and the usefulness of the practical activities. Open questions should ask which element participants intend to apply, which institutional obstacle remains and what further support is required. The quality of the outputs provides the most important immediate evidence. Trainers and peers should compare the first and revised syllabus versions and record the changes made. Follow-up evaluation should occur after participants have had time to apply the training. It may examine whether the proposal entered institutional approval, whether digital materials were developed, whether stakeholder consultation occurred and whether the course was delivered. At the programme level, MICRO4ASIA requires peer review of the developed micro-credentials, testing with at least 500 students, collection of student feedback and subsequent validation and refinement. These implementation results will provide evidence of whether WP2 capacity building translated into effective WP3 delivery.

Using the Findings

Monitoring information should support improvement rather than reporting alone. Where participants understand learning-outcome theory but continue to produce vague outcomes, additional guided practice is required. Where syllabi are academically coherent but cannot obtain

approval, institutional governance may require further support. Where approved courses experience low completion, learner selection, scheduling, workload or digital delivery should be examined. The evaluation should distinguish individual competence gaps from institutional barriers. A teacher may have the capacity to design a strong micro-credential while lacking an approval procedure, credentialing platform or recognised credit framework. Findings should be discussed across the consortium. Shared difficulties can lead to revised templates, additional examples, targeted mentoring or new guidance in D2.3.

Part IV – Conclusions and Next Steps toward WP3 and D2.3

D2.2 establishes a shared methodological basis for developing micro-credentials across the MICRO4ASIA consortium. It combines European principles with the institutional experience and disciplinary strengths of the Vietnamese and Lao partner universities. The materials demonstrate that effective micro-credentials are built through a connected process. They respond to an evidenced need, serve a defined group of learners, certify measurable outcomes, contain a realistic workload and use assessment capable of demonstrating the achievement represented by the credential. The pilot syllabi show substantial progress toward this model. They include authentic professional tasks, active learning, digital methods, applied assessment and emerging learning pathways. They also reveal areas requiring continued work, particularly target-group precision, workload and credit consistency, measurable outcome language, assessment rubrics, stakeholder formalisation, recognition information and institutional approval.

Transition to WP3

WP3 converts the capacity-building outputs into implemented and validated micro-credentials. The immediate next steps are to complete the peer review and revision of the syllabi, confirm prerequisites and workload, finalise assessment plans and prepare the proposals for institutional approval. Course teams should ensure that the final documents contain one consistent version of all core information. Each institution should then apply its own approval procedure. Approval should confirm academic coherence, staffing, digital and physical resources, assessment, quality assurance, financial feasibility, learner records and the authority to issue the credential. The approved micro-credentials should be prepared for pilot delivery through the WP3 Validation Plan. The plan should define the learner groups, delivery conditions, monitoring indicators, evaluation instruments and criteria through which the pilot will be judged. The contractual WP3 target is the development of at least 35 micro-credentials, while the Capacity Building Plan establishes a development pipeline of at least 36 course proposals. The larger proposal pool gives the consortium limited flexibility to refine, combine or replace individual drafts before final implementation. Pilot delivery should generate comparable evidence across institutions. This includes learner participation, completion, outcome achievement, workload experience, assessment performance, digital access and overall learner feedback. The project plans to test the developed micro-credentials with at least 500 learners and refine them before final validation.

Transition to D2.3

D2.3 will transform the knowledge developed through WP2 and the practical experience generated during course development into a transferable Micro-credential Toolkit. The Toolkit is expected to consolidate a glossary, standardised course template, sample syllabi, a quality assurance checklist, guidance on recognition and credit allocation, and selected European good practices. It will be available in English and local languages and designed as a living resource that can evolve with institutional practice. D2.2 and D2.3 therefore have complementary functions. D2.2 provides the structured training content and explains the principles and methods. D2.3 should convert those principles into concise operational tools that academic staff, administrators, quality reviewers and institutional leaders can use during actual programme development. The following outputs from D2.2 and WP3 should feed directly into the Toolkit:

- the final MICRO4ASIA course-development template;
- examples of well-formulated learning outcomes;
- a workload and credit-calculation form;
- a constructive-alignment matrix;
- an assessment-plan and rubric template;
- digital-content and LMS checklists;
- an institutional approval checklist;
- a credential-supplement template;
- a recognition comparison form;
- a student-evaluation questionnaire;
- selected revised syllabi showing different disciplines and delivery models;
- anonymised examples of peer-review comments and programme responses;
- lessons learned from pilot delivery and validation.

The project platform should support dissemination and reuse by functioning as a knowledge repository and open educational resource. Project materials, practical tools and lessons learned can therefore remain available beyond the original consortium and support wider institutional adoption in Vietnam and Laos. The longer-term objective extends beyond the delivery of individual courses. The Capacity Building Plan envisages integration of micro-credentials into institutional strategy, quality assurance, academic governance, stakeholder cooperation and digital credentialing. Dedicated or strengthened lifelong learning structures can coordinate these functions and reduce dependence on temporary projects or individual course champions. The progression from D2.2 to WP3 and D2.3 can therefore be summarised as:



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shared understanding → course design → peer review → institutional approval → pilot delivery → learner evaluation → programme revision → practical toolkit → institutionalisation and wider replication

Through this sequence, MICRO4ASIA can establish a locally relevant and internationally understandable approach to micro-credentials that strengthens lifelong learning, labour-market responsiveness and academic mobility across the participating higher education systems.



Annexes and Training Tools

Annex A1. Standard Micro-credential Syllabus Template

A. Programme Identification

Field	Information to be completed
Title of the micro-credential	
Short title or code	
Version number	
Issuing institution	
Country or region of issuer	
Awarding body	
Faculty, school, department or organisational unit	
Academic lead	
Course-development team	
External or industry contributors	
Planned delivery date	
Period of validity	
Language or languages of delivery	
Delivery mode	Face-to-face / online / blended / other
Learning location	University / workplace / online / mixed
Credential to be awarded	
Institutional approval body	
Date of approval	
Approval decision or reference number	

B. Rationale and Relevance

Identified Need

Describe the learning, professional, societal or labour-market needs addressed by the micro-credential. [Insert a concise evidence-based explanation.]

Evidence Supporting the Need

Evidence source	Main finding	Date or reference	Implication for the programme
Labour-market or sector analysis			
Employer consultation			
Learner or alumni feedback			



Professional regulatory requirement	or			
Institutional strategy				
Other evidence				

Relationship with Institutional Priorities

Explain how the micro-credential contributes to the institution's mission, lifelong learning strategy, academic portfolio, digital transformation, internationalisation or engagement with society.

[Insert explanation.]

C. Target Group and Entry Requirements

Field	Description
Primary target group	
Additional target groups	
Typical educational or professional profile	
Expected prior knowledge and skills	
Formal entry requirements	
Recommended prior learning	
Required digital skills	
Language requirements	
Diagnostic assessment, where applicable	
Preparatory learning or bridging support	
Maximum and minimum cohort size	
Accessibility or participation considerations	

D. Teaching Aim

State the overall purpose of the programme in one or two sentences from the provider's perspective.

This micro-credential aims to...



E. Learning Outcomes

Use three to five focused outcomes where possible. After completing this micro-credential, learners will be able to:

Code	Learning outcome	Knowledge, skills, responsibility or autonomy	Intended level	Related occupational or societal task
LO1				
LO2				
LO3				
LO4				
LO5				

Qualifications Framework Reference

Field	Information
National qualifications framework level, where formally applicable	
EQF or other international reference, where applicable for international comparability	
Authority or methodology supporting the level	
Relationship with an existing qualification or study programme	

F. Programme Structure and Content

Unit	Title and content	Related learning outcomes	Learning resources	Delivery format
Unit 1				
Unit 2				
Unit 3				
Unit 4				
Unit 5				

Describe the progression from foundational learning to application and integrated performance.

[Insert explanation.]

G. Workload and Credit Allocation



Workload component	Hours
Scheduled face-to-face teaching	
Synchronous online teaching	
Guided asynchronous learning	
Reading and preparation	
Practical exercises	
Group or workplace activity	
Project or assignment work	
Assessment preparation	
Assessment completion	
Feedback and revision	
Total workload	0
No. of Credits (Vietnamese or Lao)	
Equivalent credit in ECTS*	

* This is for the purpose of international comparability or cross-border portability.

H. Teaching and Learning Methods

Method	Purpose	Related outcomes
Focused lecture or explanation		
Demonstration		
Guided practical exercise		
Case study		
Problem-based learning		
Project-based learning		
Simulation or role play		
Workplace learning		
Peer learning		
Independent learning		
Other		

Delivery mode

I. Digital Delivery and Learning Resources

Field	Description
LMS or platform	
Structure of the online course area	
Video-based learning resources	
Interactive digital activities	
Communication tools	
Technical requirements for learners	
Technical support arrangements	



Captions, transcripts and accessible formats	
Low-bandwidth or mobile access arrangements	
Digital-resource metadata and version control	

J. Assessment and Scoring

Assessment	Related outcomes	Individual or group	Formative or summative	Weight	Minimum requirement
Assessment 1					
Assessment 2					
Final or capstone assessment					
Total				100%	

K. Constructive Alignment

Learning outcome	Content and units	Teaching and learning activities	Assessment evidence	Assessment criteria	Workload
LO1					
LO2					
LO3					
LO4					
LO5					

P. References

List core academic literature, professional standards, industry reports, datasets and digital resources.

[Insert references.]



Annex A2. Learning Outcomes Worksheet

Step 1: Define the Required Performance

Question	Response
What need or competence gap is being addressed?	
Which learner group is affected?	
What professional, academic or societal task should the learner perform?	
In which context will the performance occur?	
What level of independence or responsibility is expected?	
What evidence would demonstrate successful performance?	

Step 2: Draft the Learning Outcome

After completing the micro-credential, learners will be able to:

Element	Draft
Observable action verb	
Object of the action	
Context or conditions	
Expected quality or standard	
Complete draft outcome	

Step 3: Determine the Level

Dimension	Intended level
Knowledge complexity	Foundational / intermediate / advanced
Cognitive process	Remember / understand / apply / analyse / evaluate / create
Practical skill	Guided / partially independent / independent
Responsibility	Limited / shared / substantial



Dimension	Intended level
Autonomy	Following instructions / selecting methods / designing approach
NQF or EQF reference, where applicable	

Annex A3. Target Group and Skills Needs Analysis Template

Programme Concept

Field	Information
Proposed title	
Institution and responsible unit	
Proposed subject area	
Person completing the analysis	
Date	

Target-group Profile

Dimension	Primary target group	Additional target group
Education level		
Field of study or occupation		
Employment status		
Professional experience		
Existing knowledge and skills		
Intended use of learning		
Digital readiness		
Language needs		
Available study time		
Possible barriers to participation		



Dimension	Primary target group	Additional target group
Support or accommodation needed		

Skills Needs Analysis

Current task or challenge	Existing learner competence	Required competence	Identified gap	Priority
				High / medium / low



Annex A4. Stakeholder Consultation Template

Consultation Record

Field	Information
Proposed micro-credential	
Consultation date	
Consultation method	Interview / focus group / survey / workshop / advisory board / other
Organisation or stakeholder group	
Participants and roles	
Facilitator	
Purpose of consultation	

Consultation Questions

1. Which current or emerging tasks require stronger knowledge or skills?
2. Which competencies are most difficult to recruit or develop?
3. Which learner or employee groups should be prioritised?
4. What should a successful learner be able to demonstrate?
5. Which professional tools, standards or cases should be included?
6. Which delivery format and schedule would be workable?
7. Which forms of assessment would provide credible evidence?
8. Would the organisation recognise, promote or sponsor this micro-credential?
9. Could the stakeholder contribute to design, teaching, assessment or evaluation?
10. How frequently should the programme be reviewed?



Annex A5. Curriculum Mapping Matrix

Use the following codes:

- **I** — introduced
- **P** — practised
- **R** — reinforced
- **A** — formally assessed

Learning unit	LO1	LO2	LO3	LO4	LO5	Main activity	Assessment evidence	Workload
Unit 1								
Unit 2								
Unit 3								
Unit 4								
Unit 5								

Curriculum-map Review

Question	Yes	Partly	No
Is every outcome introduced?			
Is every applied outcome practised before assessment?			
Is every outcome formally assessed?			
Is there visible progression in complexity?			
Is unnecessary repetition avoided?			
Does the final assessment integrate the central outcomes?			
Is sufficient workload allocated to each outcome?			

Required curriculum revisions:

[Insert revisions.]



Annex A6. Workload and Credit Calculation Sheet

Activity-based Workload Calculation

Activity	Number of activities	Hours per activity	Total hours	Related outcomes
Face-to-face teaching				
Synchronous online sessions				
Video or asynchronous lessons				
Reading and preparation				
Guided practice				
Independent exercises				
Group work				
Workplace activity				
Project or assignment				
Assessment preparation				
Assessment completion				
Feedback and revision				
Total notional workload			0	



Annex A7. Quality Assurance Checklist

Use the following response categories:

Yes — fully addressed **Partly** **revision needed**

No — not addressed

N/A — not applicable

Quality area and criterion	Yes	Partly	No	N/A	Evidence or action required
The need for the programme is evidenced					
The target group is clearly defined					
Entry requirements are appropriate					
External stakeholders were consulted					
Learning outcomes are measurable					
Outcomes are appropriate to the intended level					
Content is organised into coherent units					
Content is realistic within the workload					
Teaching activities support the outcomes					
Applied outcomes receive sufficient practice					
Online or blended delivery is coherently designed					
Digital materials meet accessibility requirements					
Every learning outcome is assessed					
Assessment methods are valid and authentic					
Assessment criteria and rubrics are transparent					
Pass and reassessment rules are clear					
Academic-integrity arrangements are specified					
Total workload includes all learner activities					



Quality area and criterion	Yes	Partly	No	N/A	Evidence or action required
National credits and ECTS references are distinguished					
Any qualifications-framework level is stated accurately					
Qualified teaching staff are available					
Physical and digital resources are adequate					
Learner information is complete and accurate					
Accessibility and learner support are addressed					
Credential information supports verification					
Recognition and stackability claims are accurate					
Learner feedback will be collected					
Peer or stakeholder feedback is included					
Assessment moderation is planned					
Monitoring and periodic review are defined					
Version control is in place					
Financial and operational sustainability are addressed					

European principles expect internal quality assurance to cover the quality of the micro-credential, the learning experience, learner feedback and feedback from peers and stakeholders.



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Overall QA recommendation:

- ☐ Meets the required quality criteria
- ☐ Meets the criteria subject to specified corrections
- ☐ Requires substantive revision
- ☐ Should not proceed in its current form



Annex A8. Peer-review Form

Programme and Reviewer Information

Field	Information
Micro-credential title	
Institution	
Programme version	
Reviewer	
Reviewer institution and role	
Review date	
Disciplinary or professional perspective	

Rating Scale

1 — Major weakness

2 — Substantial revision needed

3 — Satisfactory with minor revisions

4 — Strong and approval-ready

Review area	Rating 1–4	Main strengths	Required revision or recommendation
Rationale and evidence of need			
Target group and prerequisites			
Learning outcomes			
Level and qualifications-framework reference			



Review area	Rating 1–4	Main strengths	Required revision or recommendation
Modular content and progression			
Workload and credit allocation			
Teaching and digital delivery			
Assessment and scoring			
Constructive alignment			
Stakeholder relevance			
Accessibility and learner support			
Quality assurance			
Recognition and credential information			
Overall feasibility			

Reviewer's Overall Recommendation

- ☐ Ready for institutional approval
- ☐ Ready after minor corrections
- ☐ Substantive revision and second review required
- ☐ Fundamental redesign required

Three strongest features

- 1.
- 2.



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3.

Three priority revisions

1.

2.

3.

Additional comments

[Insert comments.]

Course-team Response

Reviewer comment	Response and revision made	Location in revised syllabus



Annex A9. Glossary

Academic recognition — Formal acceptance of a learner's prior achievement for admission, exemption, credit transfer, progression or completion of another programme.

Accessibility — Design of learning, assessment, digital resources and support so that learners with different needs can participate effectively.

Assessment — Process of collecting and evaluating evidence to determine whether learning outcomes have been achieved.

Assessment criterion — A defined characteristic or standard used to judge the quality of learner performance.

Authentic assessment — Assessment requiring learners to complete a realistic professional, academic, personal or societal task.

Awarding body — Institution or authorised organisation formally responsible for issuing the credential.

Blended learning — Integrated use of physical and online learning activities within one coherent learning experience.

Constructive alignment — Deliberate alignment of learning outcomes, content, learning activities, assessment and criteria.

Credit accumulation — Combination of credits achieved through separate learning experiences within an approved pathway.

Credit allocation — Assignment of credit value to a learning experience based on intended outcomes and notional workload.

Credit transfer — Acceptance of credits achieved in one context for use in another programme or institution.

Digital badge — Digital representation of an achievement. A badge constitutes a micro-credential only when it represents assessed outcomes, contains adequate information and is quality-assured.

Digital credential — Structured and digitally verifiable record of a learner's achievement.

ECTS — European Credit Transfer and Accumulation System, used in European higher education to express learning outcomes and associated learner workload.

EQF — European Qualifications Framework, an eight-level reference framework supporting comparison among national qualifications systems.

Formative assessment — Assessment used during learning to identify progress and guide improvement.

Identity verification — Process used to confirm that the assessed work or credential belongs to the identified learner.

Learning outcome — Statement of what a learner is expected to know, understand or be able to demonstrate after completing a learning process.

Learning pathway — Structured sequence of learning experiences through which a learner progresses toward a larger competence or qualification.

Lifelong learning — Learning undertaken throughout life for personal, civic, social or employment-related purposes.

LMS — Learning management system used to organise content, communication, activity, assessment and learner records.



Micro-credential — Record of assessed learning outcomes achieved through a small volume of learning. It is learner-owned, portable, capable of standing alone or being combined and underpinned by quality assurance.

Modular learning — Organisation of learning into coherent units that can contribute to a larger programme or pathway.

National qualifications framework — National system for classifying qualifications according to levels and descriptors.

Notional workload — Estimated time an average successful learner needs to complete all activities required to achieve the outcomes.

Portability — Ability of the learner to store, share and present a credential in a manner that allows another party to understand and verify it.

Prerequisite — Knowledge, skill, qualification or experience expected before entry into a programme.

Provider — Institution or organisation that designs, delivers or issues the micro-credential.

Qualification — Formal outcome of an assessment and validation process confirming that a learner has achieved defined outcomes to a specified standard.

Quality assurance — Processes through which the relevance, design, delivery, assessment and continuous improvement of the programme and credential are verified.

Recognition of prior learning — Assessment and formal acknowledgement of learning achieved through previous formal, non-formal or informal experience.

Rubric — Scoring guide describing the criteria and quality levels used to evaluate performance.

Stackability — Possibility of combining micro-credentials so that they build logically toward a larger learning achievement. The receiving institution or organisation determines the academic or professional effect of the combination.

Summative assessment — Assessment used to make a final judgement about achievement and the award of the credential.

Transparency — Availability of clear and understandable information on outcomes, workload, level, content, assessment, provider and quality assurance.

Validation — Process of identifying, documenting, assessing and certifying learning outcomes acquired in different settings.

Workload — Total estimated learner effort, including contact learning, independent study, practice, projects and assessment.