GUIDELINES ON MICRO–CREDENTIAL

DEPARTMENT OF ACADEMIC AFFAIRS

Email: hea@uum.edu.my
Website: hea.uum.edu.my

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LIST OF TASKFORCE MEMBERS

ADVISOR

YBrs. Prof. Dr. Yusnidah binti Ibrahim
Deputy Vice Chancellor (Academic & International)

CHAIRPERSON

Prof. Dr. Nurahimah binti Mohd. Yusoff
Director of Academic Excellence Development Unit (AEDU)

COMMITTEE

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Assoc. Prof. Ts. Dr. Norliza binti Katuk
Datin Dr. Minah binti Harun
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Dr. Ahmad Edwin bin Mohamed
Dr. Mohd Faizal bin Ahmad Zaidi
Dr. Basariah binti Salim
Mr. Abd Rahman bin Mohd Isa

SECRETARIAT

Azian binti Nafiah
Zairi Afandi bin Ishak

PREFACE

The Micro-Credential programme is a platform to provide learners with an access for life-long learning. According to the Organisation for Economic Cooperation and Development (OECD), learners will be able to gain further up-skill and re-skill, gain promotion, pursue their career opportunities and diversify their skills to meet new market demands given such an avenue.

This Micro-Credential (MC) Guideline consists of seven sections. Apart from the Introduction (1.0) section, the Guideline presents the Definition (2.0) of MC and the Justifications (3.0) for conducting the MC programmes. Among the justifications presented are lifelong learning, alternative, accessibility, stackability and the recognition of non-formal learning.

The section on the Principles of a good MC (4.0) provides instructors who are interested to design and implement the MC programme with salient elements and vital aspects to be considered. Then, in section 5.0, the Quality Management System and Collaboration which made up the composition of the Effective Management are discussed to give readers an overview of all aspects of managing the development, design, delivery, assessment, monitoring, review and improvement of the programme. Next, in the section on Quality Assurance (6.0), seven aspects are presented as part of the rigorousness procedure. Among those discussed are Market Needs Analysis, Assessment of Learning, Monitoring and Review, Delivery, Learner Experience, Data and Record Management and finally, the Quality Assessment for HEP and Other Providers. Last but not least, in section 7.0 on the Recognition of MC, the issues of credit transfer and APEL are discussed.

It is hoped that the Guideline will assist both instructors and learners in the process of offering the MC as an alternative to promote part of the life-long learning process as well as to generate income for the respective institution.

ABBREVIATION

APEL A	Accreditation of Prior Experiential Learning for Access
APEL C	Accreditation of Prior Experiential Learning for Credit Award
CGPA	Cumulative Grade Point Average
COPPA	Code of Practice for Programme Accreditation
CPD	Continuous Professional Development
CQI	Continual Quality Improvement
CTM	Credit Transfer for MOOC
EQA	External Quality Assurance
HEPs	Higher Education Providers
IP	Intellectual Property
IQA	Internal Quality Assurance
IR 4.0	Industrial Revolution 4.0
GPA	Grade Point Average
MCs	Micro-credentials
MCLO	Micro-credential Learning Outcomes
MOA	Memorandum of Agreement
MOOC	Massive Open Online Course
MOHE	Ministry of Higher Education
MQA	Malaysian Qualifications Agency

MQF   Malaysian Qualifications Framework

QMS   Quality Management System

VUCA   Volatility, Uncertainty, Complexity and Ambiguity

1.0 INTRODUCTION

This guideline provides information on micro-credentials that are included recently in the academic programme in higher education. It intends to assist everyone in understanding micro-credentials and the benefits to students, employees and employers in the organisation. The micro-credential (MC) Guideline should be referred to in ensuring the university's standards and quality.

In line with the university motto, 'knowledge, virtue and service', the opportunity for life-long learning in Universiti Utara Malaysia (UUM) should be made available for all irrespective of entry qualification. In this spirit of teaching and learning and in keeping with the world wide trends, UUM recognises the need to provide opportunities for individuals who want to acquire validation in specific soft or hard skills in the workplace to ensure that their potentials can be better mobilised in the job market. In this way, they will be in the position to contribute productively while enjoying greater job satisfaction. These employees will be empowered to contribute effectively in the organisation.

UUM offers a flexible learning environment where individuals can pursue their studies in both conventional and non-conventional ways. Such flexible options encourage the employees to seek knowledge and expose themselves to new ideas relevant to their vocational fields. In the conventional way, learners can earn a degree at undergraduate or postgraduate level after a fulfilment of the required courses in specific programmes. For the non-conventional way, individuals of diverse interests and backgrounds may choose to enrol in any relevant subject areas of interest. UUM always ensures that all its courses and programmes are aligned with the academics, employers' and employees' needs through carefully rationalised learning outcomes.

In UUM, micro-credentials can be awarded in various documentations such as digital certification and letter of endorsement.

2.0 DEFINITION

According to the Malaysian Qualifications Agency or MQA (2019), MC "is a certification of learning of a smaller set of courses or modules or units which are designed to provide learners with knowledge, skills, values and competencies in a narrow area of study and/or practice" (p. 6). MQA has introduced a guideline on the principles and good practices in implementing micro-credentials for the benefits of higher education institutions and stakeholders. In the guideline, MQA highlights two important aspects which include digital attestation (digital badges, digital, nano degrees, micro degrees) that are secure and can be shared. The other aspect is recording "the achievement of learning of a specified set of outcomes (knowledge, skills and attitudes)" (p. 7).

Similarly, UUM recognises MCs as digital forms of certifications awarded to those who have managed to accomplish the required tasks and gaining access to training opportunities in a multitude of competency areas as required in their job positions. Such certifications or mini qualifications indicate the level of competency achieved as evidence in particular learning modules, for example, certificate of attendance (to seminars and lectures), digital badges, short, online courses and 'massive open online course' (MOOC). UUM MCs enable students to demonstrate their skills in real life settings and improve their soft skills in the process. The MCs also enable the employees to upgrade their professional skills through small increments of self-led learning or informal learning style and assessments which will also help the employers to fill the skills gap. The acquired skills can help the employers to improve soft skills and increase productivity in the long run. Such soft skills include self-management, teamwork, leadership skills, critical thinking and problem solving.

3.0 JUSTIFICATIONS

3.1 Lifelong learning

The 21st century is characterised by rapid and discontinuous change. To survive in the world of volatility, uncertainty, complexity and ambiguity (VUCA), adults, workers and graduates must be agile enough to reskill and upskill themselves to remain resilient and be proactive. The Higher Education Providers (HEPs) must be encouraged to design and deliver suitable short courses on new knowledge, skills, technologies and attributes to equip the workforce for the new technological and economic challenges.

3.2 Alternative

The three to four years of university education degree, whilst still important, requires a longer time to complete which is a challenge for working adults to enrol and complete the programme. For many people, the traditional undergraduate or postgraduate courses do not fit their professional needs; they are rather costly, time-consuming or do not deliver the necessary skills. MCs are considered practical options to the existing formal education; the former offers a more dynamic, competitive, demand-driven, shorter, modular and less expensive alternative to the traditional degree. Through these shorter and focused MCs, HEPs can tap into different market segments of students and workers who are less inclined to enter a four-year university degree. Such MCs can also offer lower-cost options to acquire the required knowledge, skills and competencies allowing the learners to enter the labour market sooner and pursuing further credentials to pursue their career pathways or professional interests.

3.3 **Access**

Given that MCs are offered by a wide range of providers and through flexible designs and ways of delivery, people have greater access and choice in availing themselves of higher education opportunities. Online and digital learning can bring the benefits of these courses to people near and far. With the rapid improvement in the Internet connectivity and broadband speed, more people can enjoy better quality and industry-focused learning to improve their careers.

3.4 **Stackability**

Through MCs, people can acquire knowledge and skills based on their needs, at their own pace and from one or more HEPs of their choice. The accumulation of MCs and credits can be tendered to HEPs for successful completion leading to an award or credit transfer based on a credible and transparent outcome-based process subject to existing policies. This route can open yet another pathway for working adults to seek knowledge and skills which can ultimately lead to a qualification.

3.5 **Recognition of Non-Formal Learning**

MQF allows for the recognition of all forms of learning in seeking entry into academic qualifications described in the MQF. MCs, which testify to the successful attainment of specified outcomes can be considered through the Accreditation of Prior Experiential Learning for Credit Award (APEL C) process for credits in the academic programmes offered by HEPs. Recognition helps to underpin lifelong learning by helping people learn about themselves and develop their careers within a lifelong learning framework.

4.0 PRINCIPLES OF A GOOD MICRO-CREDENTIAL

4.1 **Outcome-based**

MCs lead to competency-based outcomes akin to mini degrees or certificates in a specific topic area to advance learners knowledge and skills. The learning outcomes can be attained through micro-learning (bite-size) involving micro-activities and micro-assessments that directly relate to what students need to know and be able to do. Competency-based learning uses the methods of instruction, assessment and recognition that are based on learners demonstrating that they have learned the knowledge, skills, abilities, attributes and proficiency as stated in the learning outcomes. It transformed the traditional university degree programmes that are time-based and fixed curriculum into being more flexible and focused on the mastery of skills.

4.2 **Micro-learning**

Micro-learning should adopt small learning units in a specific area of study (bite size) and short-term learning activities that range between thirty minutes to two hours. This includes a set of guided lessons and assignments that need to be completed by the students. Short-form learning activities are suitable to fit the attention and scheduling demands of today's learners, making learning fast, easy and convenient.

4.3 **Professional body requirements**

A validation by a professional body or recognised educational institutions is required for MC courses related to professional qualifications. For example, a micro-certificate in psychotherapy or counseling must be validated by Malaysian Association of Therapy or Malaysian Board of Counselor.

4.4 **Personalised**

Instructors should design the MC courses in varied ways that fulfill the knowledge and skills as needed by the learners in specific topic areas. Thus, learners must have the freedom to select courses that cater for their needs, interests, works and level of skills for professional or personal developments. The mode of delivery, pace of learning, hours of learning and assessment methods should be flexible that eventually lead to personalised learning. The applications of MOOCs and hybrid learning approach are highly recommended to offer a flexible and personalised learning in this sense. In other words, learning should follow these principles of 'just enough', 'just in time' and 'just for me'.

4.5 **On-demand/industry driven**

Instructors should design MC courses that meet the contemporary demand of the industry and individual learners. It should incorporate latest skill-sets, knowledge and technological know-how that enable learners to take up emerging jobs in the IR 4.0 era. To enable this, instructors are encouraged to foster close engagement with the industries and employers to get valuable input that can bridge the skills gap of working professionals.

4.6 **Secure and shareable**

The MCs should ideally be based on technologies that preserve the identity of the learners and protect the certifications from being misused or altered to ensure users trust.

The accomplishment of MCs is indicated in the form of digital credentials. Digital credentials are simply digital versions of the traditionally paper credentials, that shows proof of some kind of qualification, completion, clearance or competence. On a practical level, these digital credentials should be verified in the same manner as their paper counterparts. Three examples of learning-associated digital credentials are:

    4.6.1   Test-Based Digital Credentials: these are awarded to individuals who can prove competency in some subjects through a proctored exam.

    4.6.2   Digital Certificates: these are essentially the same as test-based digital credentials but they do not require a proctored exam to receive. Often these digital certificates are issued for the completion of a course or module.

    4.6.3   Digital Badges: these are awarded for higher stakes accomplishments, such as completing a rigorous examination or passing a course.

The test-based digital credentials and digital certificates are designed to look similar to their physical counterparts whilst the digital badges have a more unique look. Of the three, the use of digital badges is highly recommended for ease of verification and carry vital learner information for users.

Ideally, the digital credential should be in the form of image-based. In addition, it should also have meta-data to communicate the details for those wishing to verify it, or learn more about the context of the achievement it signifies. It should contain the individual's name, what the credential is for, who issued it and if necessary, when it expires. The records on learner application, progression, performance, attrition and completion of modules or MCs must be securely maintained by the provider for verification by users. These data should provide all the information needed to understand what the digital credential signifies.

The digital credentials should be safe and shareable. These digital credentials should be stored in a secured database. The database acts as a platform which serves as a common system for issuing, collecting, displaying and requesting digital credentials across multiple platforms including social media, professional networking sites, email, blogs and resumes.

The platform should allow learners to share the digital credentials with potential employers, education and training institutions or other organisations that need information on their qualifications. Thus, the platform should be designed and administered to accommodate the storing of dynamic data that can be kept current and even expanded. A policy has to be established to maintain the privacy and confidentiality of the learners as well as prevent unauthorised use.

4.7 **Information Transparency**

Transparency in providing credible and up-to-date information regarding a specific educational achievement through MCs empower credential earners, consumers and other stakeholders to evaluate for themselves the meaning and value of the credentials. The principle of openness should be applied by ensuring that the relevant information is readily available and searchable to the authorised users. Should the information be inaccessible, formal procedures need to be established for it to be requested. A clear procedure should also be established to determine the level of information disclosed depending on the categories of users.

The providers of MCs should furnish complete information on the general MCs policies of the HEPs and specific MCs information in a readable and easily accessible form. The general policies should cover aims and objectives of the MCs, instructors, learners and management policies as well as the career paths. Meanwhile the specific MCs information should cover: (i) what the MCs entails and how the MCs are awarded, (ii) the value of the awarded MCs (i.e., the equivalent credits) and (iii) the process and procedure to apply for the credits. In particular, this information includes the course objectives, outcomes (knowledge, skills and attitudes), mode of delivery, hours of learning (if applicable), content, assessments, equivalent credits, recognitions and endorsements to the learners and other authorised users for purposes of evaluation and recognition.

4.8 **Naming the MCs**

The MCs offered by any HEPs should be appropriately named. When considering the names for MCs, nomenclature principles should be used. Ideally, the name should be simple, accurate, meaningful and reflects the purpose, delivery, content, assessment, level, qualifier and scope of the qualification. The name of the MCs should also be consistent with national and international norms as well as conform to the programme standard and accreditation body guidelines. The titles should not in any way conflict with any qualification titles stipulated in the Malaysian Qualifications Framework (MQF) or programme which the MC is a part of or any other titles which have been trademarked. Where there is conflict between various naming policies, the MQF Policy will prevail.

MCs nomenclature should be easily recognisable by prospective students, employers and other stakeholders. It should be unambiguous in terms of level and professional orientations. Special considerations need to be taken into account to avoid the possibility of misunderstanding/misinterpretation by learners, employers or the public. A naming convention should be established to avoid confusion and ensure consistency in awarding MCs. It is suggested that MC providers name their MCs award as *Micro-*

Credential or *Micro-Award* or *Micro-Certification* in the title of the course or the title reflecting the courses.

5.0 EFFECTIVE MANAGEMENT

Effective management consists of nine elements of the Quality Management System (QMS) with potential collaboration with external parties as depicted in Figure 5.0.

Figure 5.0: Elements of quality management system for effective management

5.1 Quality Management System

An effective QMS covering all aspects of managing the development, design, delivery, assessment, monitoring, review and improvement should be established and maintained by the HEPs. The QMS must be formally assigned to the HEPs. The HEPs must constantly seek feedback from the learners as part of their continuous improvement plan. All records of the learners and their achievements must be properly

maintained and secured for future validation. The following are details of the QMS aspects.

5.1.1 Policy statement

Policy statements should explain the MC providers' aims and objectives in offering the MCs programme. MCs are part of the strategy to realise the UUM strategic plan; as such, each MC or stacked MCs will specify in the approval process how that is aligned with the plan.

5.1.2 Procedure and process

The procedure and process should outline how MCs are developed and implemented.

In terms of development of MCs, HEPs need to develop a proposal for the approval by UUM relevant bodies consisting the following:
a) Title
b) Description
c) Levels of the qualifications framework
d) Learning outcome
e) Standards, criteria, evidence and assessment process for certification
f) Design of the credentials
g) Delivery
h) Award

In implementing MCs, MC providers need to consider several important factors:
a) determining the relationship between individual credentialed products and whether a hierarchy or other organising structure exists;
b) assessing the size duration or weight of each micro-credential;
c) mapping the micro-credentials against the relevant skills, competencies or capabilities.

The HEPs are responsible for ongoing quality assurance of any MCs developed. MCs must be awarded on the basis of the achievement of outcomes appropriate to their levels, and not only recognise participation. MCs may be 'stand-alone' modules and do not need to contribute to a qualification. MCs may be open-entry or certain entry criteria may be specified.

If there is an intention to develop or deliver a MC in conjunction with a third party, the proposal must include details of the respective roles of the parties in the development and delivery of the MC.

5.1.3   Review Mechanisms

The review mechanisms should outline the ways in which the implementation of MCs would be monitored and improved. The HEPs must periodically evaluate MCs to ensure that it is relevant and current. The review needs to address several elements: (i) whether the MC is meeting its purpose, (ii) if there are any issues raised in student evaluations, (iii) to check the ongoing appropriateness of teaching and learning methods and assessment, (iv) whether learning outcomes remain appropriate and (v) whether there is continued demonstrable support for the MC from industry, employers or the community. Learners' feedback should be part of the review process and may be used for improvement purposes.

5.1.4   Programme Delivery

The programme delivery should outline how learning programmes will be developed, delivered and evaluated. This outline supports conventional delivery methods which are defined as face-to-face learning and teaching. The MC programmes are delivered to learners in the form of lectures/tutorials/practical (including learning in the industry) conducted according to the period of the MC modules or with a combination of online learning (i.e., blended learning). However, blended learning should be between 30 to 60 percent of the programme total credits (MOHE, 2018). Each module in the MC programmes should specify the delivery methods in the module outline/syllabus.

In the case of online learning exceeding 60 percent of the programme total credits, the Code of Practice for Open and Distance Learning (Malaysian Qualifications Agency, 2013) should be strictly followed in the development, design, delivery, assessment, overall management and enhancement of the MC courses or modules. In this case, an open and distance learning programme should be accredited in the place before the MC programme is proposed.

5.1.5   Instructor Policies

The instructor policies should outline policies and procedures for instructor selection, appraisal and development. The HEPs need to clearly specify the

qualification and expertise required of the instructors. This policy is also applicable to non-UUM instructors in the case of HEPs' collaboration with other institutions.

5.1.6   Learner policies

Learner policies should outline policies and procedures for the selection of learners and the guidance and support they should receive. This may include entry requirements (i.e., academic qualification and working experience) and age limit for graduation. Table 5.1.6 shows the age limit for graduation as set by the MQA.

Table 5.1.6: *Age limit for graduation*

No	Level	Entry Requirement	Normal Age at Graduation
1	Certificate	Based on current entry requirements or equivalent	19 (18+1)
		APEL(A)/APEL (Micro- credential)	20 (19+1)
2	Diploma	Based on current entry requirements or equivalent	20 (18+2)
		APEL(A)/APEL (Micro- credential)	22 (20+2)
3	Bachelor	Based on current entry requirements or equivalent	22 (19+3)
		APEL(A)/APEL (Micro-credential)	24 (21+3)
4	Master	Based on current entry requirements or equivalent	24 (23+1)
		APEL(A)/APEL (Micro-credential)	31 (30+1)

Source: MQA (2016)

5.1.7 Assessment policies

Assessment policies should outline policies and procedures for forms of assessments that are used and how they are managed. Assessment should therefore be the anchor point to instil confidence in the value of a MC. Clearly articulating assessment methods, criteria, tasks and evidence not only is a requirement for learners but is vital to enable the reviewers or consumers of the credential to appreciate its true value. As part of the assessment process, instructors need to consider new ways that might be appropriate to demonstrate the application of knowledge or skills. For example, this might involve assessment by industry professionals or the adoption of industry assessment standards. The notion of accompanying evidence and what should be appropriate to attach to a credential as proof is also an important factor, particularly in the context of data security or joint IP ownership.

The assessment methods should be well defined and communicated to the learners. The UUM standards for the assessment must be referred to and the programme providers shall decide on the appropriate assessments. In addition, it must adhere to the UUM grading system. A rigorous assessment strategy with careful consideration of the nature of the supporting evidence remains at the core of the overall design process.

5.1.8 Management system and policies

The management systems and policies indicate the financial, administrative and physical structures and resources of the organisation as well as the procedures of accountability within the organisation.

5.1.9 Career path

The HEPs need to ensure the MC is able to provide a clear career pathway for the learners. Having an overarching system and schema adds rigour and value to the MCs by articulating a meaningful pathway for each micro-credential and minimising the risk of inadvertently creating dead-end pathways or orphan products.

5.2 **Collaboration**

In the case of HEPs offer MCs through collaboration with any organisation or institution either nationally or internationally, such arrangements must be formalised through a Memorandum of Agreement (MOA) and the principal HEPs must

demonstrate effective oversight of the content and delivery of the MCs so that the quality of the MC is upheld for all learners.

6.0 QUALITY ASSURANCE

The quality assurance provides confidence to learners and all other users of the credentials (e.g., employers, universities, recruiters) that the courses or modules in the MC programmes adhere to the principles of good MCs as outlined by MQA (2019) and UUM MCs Guideline. The MC providers should conduct rigorous forms of quality assurance, quality control and accreditation of MC programmes to ensure learners obtain the intended competencies and achieve the specified learning outcomes. The same quality assurance, quality control and accreditation for the conventional academic programmes are also applied to MC programmes. Therefore, MC providers should follow the UUM current principles in the development, design, delivery, assessment, overall management and enhancement of the MC courses or modules.

MC providers can propose to the Academic Planning Committee/*Jawatankuasa Perancangan Akademik UUM (JKPAU)* any particular MCs from the existing conventional MQA-accredited academic programmes. The MC providers must select from the existing accredited programmes to guarantee that the proposed MC programmes comply with the relevant programme standard, have established fundamentals and have a sound curriculum structure. It should be able to show the learners how the combination of the MC modules contributes to their learning pathway in a similar way that the graduates obtain a degree from the conventional MQA-accredited academic programmes.

In maintaining the quality of MC programmes, MC providers should adopt a planned and systematic process to ensure that acceptable standards of education, scholarship and infrastructure are being met, maintained and enhanced. Therefore, the Code of Practice for Programme Accreditation (COPPA) provided by the Malaysian Qualifications Agency (MQA, 2018) should be strictly followed. In the case of academic programmes with professional bodies accreditation, the MC providers should also comply with the code of practice of the professional bodies. The quality assurance aspects of MC programmes are illustrated in Figure 6.1.
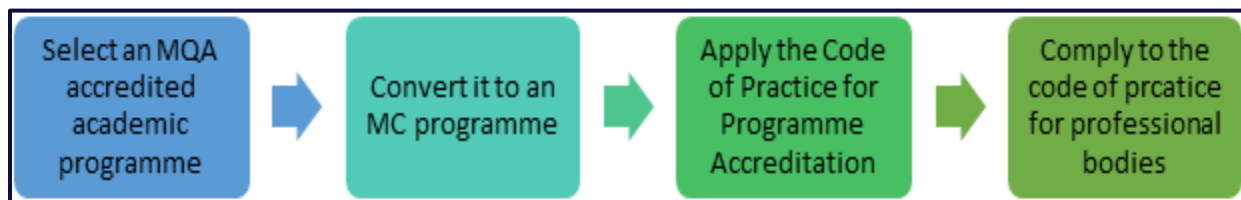

Figure 6.1: *The quality assurance aspects of MC programmes*

6.1 Market Needs Analysis

The MC providers should conduct a market needs analysis by taking into account the national employment needs that can be obtained from various sources. These sources may include information from the relevant government agencies (e.g., Economic Planning Unit, Ministry of Human Resource, Department of Statistics, etc.), job portals, Institute of Labour Market Information and Analysis and employer surveys (Jabatan Pendidikan Tinggi-KPT, 2018). The employer survey should use the standard template provided by MQA or UUM. The main components of the survey are the suitability of the programme content and job opportunities. It should ask the employers relevant questions regarding lifelong learning, reskilling and upskilling of their employees that demonstrate demand for flexible learning in the field of study.

The market needs analysis will ensure that the MC programmes meet the needs of the industry, are competitive and sustainable. The involvement of industry and professional bodies in the development of MC programmes is essential to ensure that relevant competencies are provided to support their employees' reskilling and upskilling needs. Figure 6.2 illustrates the roles of market needs analysis in the MC programmes quality assurance.
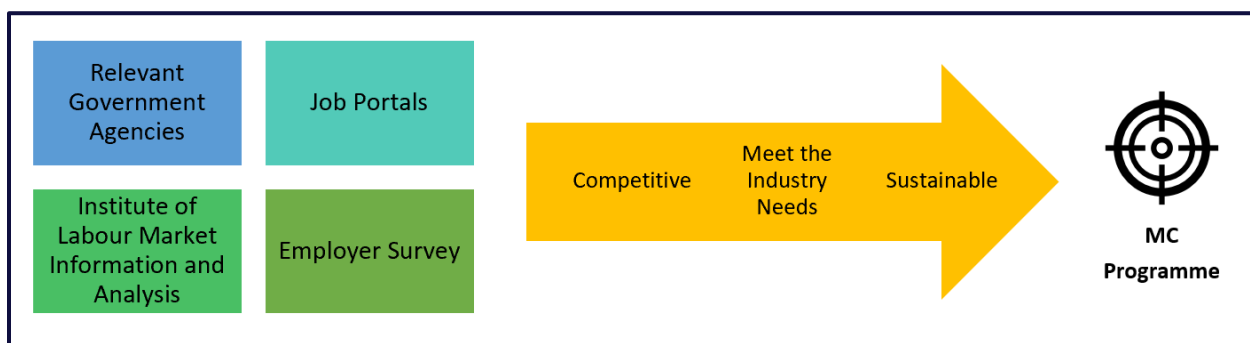

Figure 6.2: *The roles of market needs analysis in the MC programmes quality assurance*

6.2 Assessment of Learning

Assessment for learning is the process of observing and interpreting learners' attainments in their learning. The assessment of MC learning should focus on evaluating learners' competencies specified by each MC learning outcome (LO). MQA (2014) defined competency as an underlying characteristic of a learner's knowledge, skills and abilities to complete a given task or role successfully and meaningfully. The assessment of MC learning outcomes (MCLO) should follow the 'Guideline to Good Practices: Assessments of Students' (MQA, 2014). In assessing learners, MC providers should apply a standard and systematic process as outlined by MQA or UUM. Figure

6.3 illustrates the process for an assessment plan to find evidence and performance standard of MCLO attainment as proposed by MQA.
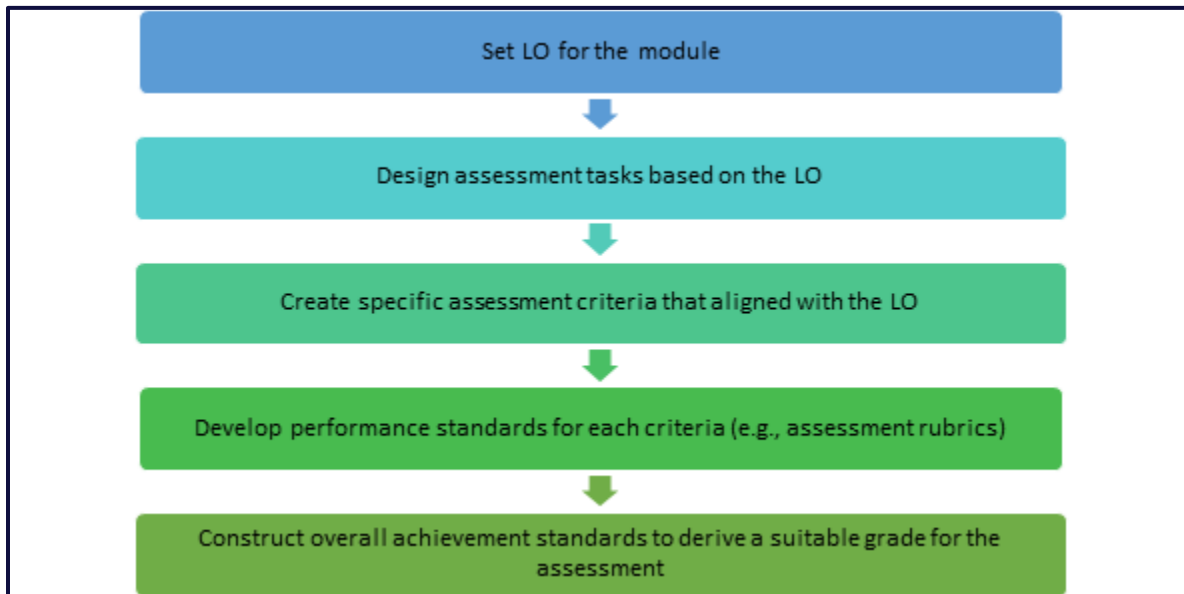

Figure 6.3: *The generic process for an assessment plan of the MC module*

The MC providers should design assessment tasks that allow learners to display their knowledge, talents, competencies and skills based on the MCLOs. This can be done using multiple assessment methods to ensure that learners' attainment of the MCLOs are measured using diverse attributes. The selection of assessment tasks is made with reference to standard practices of the respective fields as well as the academic staff experiences who are involved in teaching MC programmes. The assessments should cover coursework, examinations and tests or workplace-based assessments.

6.3 **Monitoring and Review**

The MQA (2018) 'Code of Practice for Programme Accreditation' (COPPA) should be strictly followed for the development, design, delivery, assessment, overall management and enhancement of the MC courses or modules. Further, MC providers must conduct Continual Quality Improvement (CQI) to continuously improve the quality of teaching and learning of the MC programmes. It should be conducted at the module and programme levels to ensure that the contents of the MC programmes provide relevant competencies to the learners. MC providers should also conduct the programme review activities following the '*Garis Panduan Semakan Kurikulum*' by the UUM Department of Academic Affairs.

6.4 Delivery

The MC providers should outline how the learning programmes comply with the delivery methods and systems as described in Section 5.1.4 Programme Delivery of this guideline.

6.5 Learner Experience

The MC providers should ensure learners obtain the expected experience as stated in the course or module learning outcomes. Among the expected experiences are the underlying knowledge of the specific area of study, hard skills, soft skills, the competencies and capabilities. Learners need to update such knowledge and skills as well as the competencies and capabilities constantly and gradually. Learners should gain employability skills which are recognised by industry, professions and employers to produce 'work-ready' employees. Employability skills are expected to be the fundamental requirements in any workforce. These skills are not occupation or industry specific and can be transferred seamlessly across work environments and professions. The MC learners should also gain motivation for lifelong learning as they complete the course/module and are driven to continue to advance their skills for professional work and academic study.

6.6 Data and Record Management

The MC programme approved by the Senate shall be registered in the respective university academic and non-academic information systems (e.g., GAIS, ASIS, IFAS etc.) which also stores the scheduling, MC modules, students' and instructors' records. All related data shall be recorded and stored for easier retrieval and references, such as, for credit transfer, badges and certification.

The data and record management is crucial for multiple purposes, for instance, issuing learners with MC certified documents, sharing data through an online database and providing user-oriented data access solutions which can include academic achievement information. The MC providers shall also ensure the compatibility and interoperability of all the computerised systems.

6.7 Quality Assessment for HEP and Other Providers

In addition to obtaining approval from the University's Senate and Ministry of Higher Education Malaysia (MOHE), the MC providers shall comply with the relevant accreditation or professional bodies which are directly involved with the respective academic programme. The MC programmes shall also follow the guidelines or standards for quality assessments which are directly relevant to the academic programme (e.g., SIRIM MS ISO, MQA etc.).

7.0 RECOGNITION OF MICRO-CREDENTIALS

MCs can be additional, alternate or complementary to the component of formal qualifications. There are three categories of MCs. They may be offered as the cluster of courses from accredited programmes by multiple HEPs as the consortium to adult learners. Learners may also seek MCs across many independent HEPs including authorised foreign HEPs, within a field of study or across cognate fields. These learners may seek to acquire an award from one of the HEPs which has an accredited programme in the field of interest. The HEP can consider these MCs for horizontal credit transfer based on the general credit transfer policy of MQA6 and the in-house regulations of the HEP on credit transfer, the currency of knowledge and residential conditions. The awarding HEP can consider up to 70 percent of the courses via MCs for credit transfer and assess the learner for the balance of the credits through prescribed courses in the programme whose award is sought by the learner.

7.1 Policy for Credit Transfer

a) Learners who have taken MCs courses at the postgraduate level at UUM or other institutions and have obtained the MCs, which is recognised by the University, can apply for credit hour transfer for the subjects which are deemed equivalent to the subjects required by the academic programme.

b) Learners should obtain at least a B grade or equivalent for the MCs course to be eligible for a credit hour transfer. The University reserved the right to conduct a test for the course to be transferred.

c) The validity of the MCs for a credit transfer must be less than five (5) years from the application date. Application for a credit hour transfer must be made in writing to the respective MCs providers.

d) The maximum number of credit hours transferable will be based on the nature of the MCs as outlined in Table 7.1.

Table 7.1: *MCs, Recognition and Awards*

Nature of MC	Component of Accredited Programme	Component of Accredited Programme	Free Standing - additional, alternative & complementary
MC Provider	Single HEP	Multiple HEPs	HEPs and Other Providers
Origins of MCs	All MC courses	A combination of	A combination of

	are components of a fully accredited programme of a HEP.	courses from several accredited programmes across other HEPs or providers whether local or foreign.	courses taken from a variety of providers.
Credit Transfer/ Completions of Requirements	Since all the MC courses are components of the programme which is included in the Internal Quality Assurance (IQA) and External Quality Assurance (EQA) processes, all course credits proceed towards the completion of the programme.	Credit transfers (subject to credit transfer policies of MQA and the University) to a maximum of 70% by the HEP awarding the qualifications. The awarding university can determine the 30% requirements to be fulfilled and the mode of delivery of these courses.	Credit transfer under Credit Transfer for MOOCs, APEL C and MC CPD to any accredited programme up to 30% (these include programmes under the column 1 and 2). Credit recognition of higher percentage will be provided through APEL for award arrangement.
Residential Substitution Requirements	None - at least 70% of the MC courses are components of an accredited programme of the awarding HEP and are subject to all IQA and EQA processes.	At least 30% of the graduating credits must be taken with the awarding HEP through any approved modes of delivery.	Subject to residential requirements for Non-MC arrangement.

Source: MQA (2016)

e) This guideline must be read together with the following documents:

    i.   MOHE/MQA Policy on Credit Transfer;
    ii.   MQA (2016) Guidelines to Good Practices: Accreditation of Prior Experiential Learning for Credit Award [APEL(C)]; and
    iii.   Guidelines on Credit Transfer for MOOC.

7.2 **Credit Transfer**

The guidelines on credit transfer for MOOC were developed by MQA as a mechanism to recognise learning via MOOC as an avenue for the acquisition of learning, to provide recognition through the award of credits and to reduce the duplication of learning. In general, the requirements on credit transfer for MOOC are based on the following criteria.

   i.   Level of Programme

      Credit transfer to be awarded for MOOC can only be considered for courses within the programme levels in the Malaysian Qualifications Framework (MQF) as stated in Table 7.2.

Table 7.2: *Level of Malaysian Qualifications Framework (MQF)*

MQF Level	Qualifications Awards
Level 8	Doctoral Degree (applicable only for coursework or mixed mode programme)
Level 7	Master's Degree (applicable only for coursework or mixed mode programme)
	Postgraduate Diploma
	Postgraduate Certificate
Level 6	Bachelor's Degree
	Graduate Diploma
	Graduate certificate
Level 5	Advanced Diploma
Level 4	Diploma
Level 3	Certificate

Source: MQF Version 2.0 (2017)

ii.   Conditions for credit transfer eligibility

The following conditions must be adhered to in the Credit Transfer for MOOC (CTM) process:

a) CTM is only confined to courses in programmes that have obtained accreditation from MQA;
b) CTM is only awarded for a specific course applied for. It is not automatically applicable to the prerequisite (if any) of the said course;
c) It is the prerogative of the HEP to determine courses eligible for credit transfer. There is no provision of credit transfer through the CTM process for industrial training/practicum/final year project /dissertation/thesis;
d) At the postgraduate level, CTM is only applicable for courses delivered through the coursework or mixed mode programmes;
e) Courses from programmes that require accreditation from professional bodies can be given CTM, subject to the HEP obtaining approval from the relevant professional bodies;
f) Credits awarded for a course through the CTM process should be in full and match with the credit value of the course applied. No partial or block credits will be awarded;
g) Credits awarded for a course through the CTM process can be based on the mapping of the CLOs of a single MOOC or a combination of a few MOOC; and
h) Courses that have been granted credit transfer through the CTM process will contribute to the total graduating credit requirements but will not be used in the calculation of Grade Point Average (GPA)/Cumulative Grade Point Average (CGPA) of the programme pursued.

iii.   Course content mapping

CTM involves mapping, comparing and evaluating the extent to which the course content of the MOOC/combination of a few MOOC to the course applied for credit transfer.

iv.   Limit of credit transfer

CTM is an integral part of APEL(C). As such, credits awarded through the CTM process shall not exceed 30 percent of the total graduating credits of a specific programme of study. The maximum limit of credit transfer through CTM is based on the various MQF levels.

The credit transfer shall not be counted twice for the various academic qualifications. For instance, the same MOOC that has been granted CTM at

diploma level cannot be reconsidered for another programme at a higher level. The applicant must declare that he/she has not received any prior credit transfer for the courses applied.

7.3 Accreditation of Prior Experiential Learning (APEL)

7.3.1 Credit Transfer for APEL (APEL C)

Prior experiential learning should be catalogued, analysed and tested for achievement of learning outcomes in courses, modules or units that make up a programme. Credit transfer can be granted for APEL if there is parity with course outcomes. Learners are eligible up to 30 percent credit transfer based on the credits in the programme awarded.

Credits that are awarded through APEL(C) must be made based on the demonstrated and evidence based learning; and not solely on claiming the experience itself. Learning is assessed based on the course learning outcomes. Learners must achieve at least 50 percent of each course learning outcome.

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FREQUENTLY ASKED QUESTIONS

1. **How does MCl differ from the conventional academic credential?**

    Conventional academic credentials are rigid, based on time and largely short, online type of education. MCs on the other hand, are flexible education, more towards *just for me-type*, *just in time* and *just enough principles*.

2. **What is the length of time spent on completing MCs?**

    This will depend on the specific modules taken apart from fulfilling the universityand MC providers' requirements. Learners can choose to do the particular task gradually as agreed by the organisation/employer at the workplace.

3. **What can learners do with the specific skills acquired through MCs?**

    Learners can demonstrate the skills acquired in a particular job area when joining the workforce/the organisation. This ensures that learners can contribute and fill the gap as evidence of particular achievement.

4. **What are the advantages of MCs?**

    MCs offer knowledge and skills for both professional and personal developments that suit individual learner needs and objectives. In addition, the courses offered are contemporary based on industry demands and focus on mastery of skills that can be utilised immediately.

5. **How can learners' competency be evaluated in MC courses?**

    To assess learners' competency, various methods can be implemented according to the needs of individual courses, for example, creating portfolio development and video presentations.

6. **Can the name of the MC programme be similar to the existing awarded programme?**

    The name of MC programme should be a different one from the existing nomenclature and is dependent on the specialisation/discipline.

7. **Are learners allowed to graduate below the age limit set by MQA?**

MQA policy indicates a different minimum graduation age limit for candidates for different levels of study. For masters level, the age limit for graduation is 31.

Learners can refer to the MQA (2019) document on the age limit for graduation.

8. **For assessment purposes, is it compulsory to have both summative and formative assessments?**

The assessment follows through the alignment with the learning outcomes and the learning activities.

9. **Can these MCs be recognised (i.e., given credits) if these learners enrol in academic programmes?**

The component of MCs to be recognised must come from the existing academic programmes awarded. However, for the stand alone MCs, learners may request for a transfer of credit for the components already taken.

10. **Do MCs need MOHE or MQA approval?**

Yes, for academic programmes, any offering of MC needs to get the approval from MOHE/MQA, but not necessarily for the stand-alone MC programmes.

11. **How do we ensure quality assurance and quality control of MC programmes?**

The Code of Practice for Programme Accreditation (COPPA) provided by the Malaysian Qualifications Agency (MQA) should be adhered to in maintaining the quality assurance and quality control of MC programmes.

12. **Do the MC programmes need to adhere to the external bodies requirement?**

Yes. The MC programme needs to adhere to the external bodies requirement in order to get the recognition.

13. **Should the MC providers comply with one digital system to ensure the compatibility and interoperability of the data and record management?**

The compatibility and interoperability of MC computerised systems are important. This ensures that all data related to MC records of the vital and dynamic administrative

historical, financial and legal values are identified and preserved and that non-essential records are discarded in a timely manner according to established guidelines and identified legislation.

Prepared by:
Academic Excellence Development Unit (AEDU)
Department of Academic Affairs, UUM

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