Agensi Kelayakan Malaysia
Malaysian Qualifications Agency

MALAYSIAN QUALIFICATIONS FRAMEWORK (MQF)

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FOREWORD

Qualifications frameworks are dynamic and require periodic revisions to ensure currency and relevancy in the changing landscape of higher education. The Malaysian Qualifications Framework (MQF), introduced in 2007, was reviewed in 2017 to ensure alignment with the ASEAN Qualifications Reference Framework (AQRF). It involved re-profiling the outcomes domains into Five Clusters to make explicit the skillsets and placing the skills and the Technical and Vocational Education and Training (TVET) sectors under an inclusive TVET sector in the Framework. Since the review in 2017, additional changes have been observed in the global higher education landscape. These changes are driven by the rapid globalisation of education, the rising demand for lifelong learning, the proliferation of digital and remote learning technologies, and a growing collective realisation that the Framework must be more values-based and integrate the Global Sustainability Agenda (GSA).

As the custodian of the MQF, the Malaysian Qualifications Agency (MQA) responded to these changes by reviewing the MQF to enhance the implementation of the Framework. These include strengthening Values-Based Education (VBE) as advocated in the National Education Philosophy and the Malaysia Education Blueprint 2015 – 2025 (Higher Education); strengthening the Flexible Learning Pathways (FLPs) to widen accessibility in higher education and promote the lifelong learning agenda; strengthening curriculum development and delivery in addressing the GSA, such as the Sustainable Development Goals (SDGs), and enabling alignment of other local sectoral, occupational and competency frameworks to the MQF to reflect the maturity of the education and training ecosystem in the country.

Adhering to the strong belief in a consultative approach, MQA held several engagement sessions, including a Modified Delphi Technique session with eminent panellists; Focus Group Discussion (FGD) sessions involving experts representing stakeholders from the public and private sectors; and townhall engagement sessions with external and internal stakeholders, involving Higher Education Providers (HEPs), skills training centres, the panel of assessors from MQA and the Department of Skills Development, professional bodies, ministries/policymakers and industries.

Findings from these sessions were analysed, discussed and synthesised by a 22-member Committee appointed by MQA, resulting in the revised MQF (2024). This 2024 Edition brings the Framework up to date with recent developments since its revision in 2017. With full support and cooperation from all stakeholders, MQA believes that the quality of higher education in Malaysia will continue to be globally competitive and comparable.

Thank you.

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2024

Introduction

1. BACKGROUND

1. The social, economic, political, competitive and sustainable development of nation-states is highly dependent on the strengths and quality of its people and its educational systems from early childhood to continuous lifelong learning. In higher education, the framing of national qualifications globally has emerged as a significant initiative over the last decade. This effort aims to improve learning, skills and competencies, nurturing holistic and balanced graduates to support national policy and development goals.

2. In Malaysia, the importance of the role of higher education and training institutions in developing quality citizens and a workforce that is highly knowledgeable, skilled, talented and ethically sound has been unambiguously acknowledged. Developments in higher education and training institutions have been guided broadly by the National Education Philosophy which emphasises nurturing holistic and balanced graduates that will contribute to the social, economic and political development of the nation. Empowering the actualisation of the philosophy is the Malaysia Education Blueprint 2015 – 2025 (Higher Education), which outlines the strategies, plans, key performance indicators, responsible departments, institutions and agencies within a number of strong enabling legal frameworks. The Malaysian Qualifications Framework (MQF), which was mandated under the Malaysian Qualifications Agency (MQA) Act 2007, has a key role within these complex arrangements, i.e., to set not only qualification standards for all qualifications in the higher education and training sectors but also to ensure a holistic graduate development through the Five Clusters of Learning Outcomes, with emphasis on Values-Based Education (VBE). In addition, sustainability key competencies advocated in Education for Sustainable Development (ESD) should also be related to and integrated into the Five Clusters of Learning Outcomes.

3. The milestone decision to develop a national qualifications framework and establish the MQF was agreed by all stakeholders in 2007. The MQA Act 2007 sets the MQF as an overarching framework for all post-secondary qualifications, with a set of objectives to be served and serviced by MQA. The

Framework is “development-oriented” and enabled by strong government policies and regulations, centrally mandated for the MQF, its stakeholders and in partnership with higher education and training institutions.

4. All programmes and qualifications within the academic and Technical and Vocational Education and Training (TVET) sectors are expected to be in compliance with the MQF as required by relevant national policies since 2011. This Framework is the instrument which sets national classifications of qualifications, levels of learning achievements based on learning outcomes and prescribed academic load at each level, and it is associated with the title of a named qualification. As stated in the legislation, *“No programme will be accredited unless it is in compliance with the Framework.”* The legislation underpins the quality assurance (QA) system practised by MQA, which acts as the guardian and custodian of the MQF.

5. Since the establishment of MQA and its creation of the MQF First Edition in 2007, major changes have taken place in both education and the workplace globally. These changes and challenges include:

   i. the sensible management of the QA of professional programmes;
   ii. digitisation and the rapidly changing nature of jobs;
   iii. the focus on individual competencies;
   iv. shifts in higher education itself with the massive use of educational technologies for teaching and learning;
   v. delivery of services, particularly in response to the demand for greater internal efficiencies of systems;
   vi. meeting market expectations, especially taking note of graduate unemployment due to a mismatch between curriculum and employment;
   vii. greater demand for employability skills;
   viii. recognition of diversity and differential missions of Higher Education Providers (HEPs);
   ix. standards requirements for the TVET sector called for continuous engagement with key users of qualifications, including the learners themselves;
   x. lack of understanding and the required capabilities to implement the learning outcomes effectively by the academic community;

xi. absence of integration pathways of the basic learning outcomes of different sectors; and

xii. comparability with qualifications from other jurisdictions.

6. Acknowledging that change is and will always be a constant requires the MQF to undergo periodic reviews, taking stock of changes in the ecosystem, shifts in higher education purposes and their delivery services, including the need for developing global competencies[1], which encompasses being global citizens who embrace sustainability practices, as well as the high expectations of citizens for a more flexible and better quality of higher education and its products.

7. The purpose of the reviews, both in 2017 and 2024, is not to revise the MQF fundamentally but to strengthen and address the developing needs, access, responsiveness, emerging skills or knowledge needs and coherency within the academic and TVET sector. These reviews revisit the MQF as a unified and comprehensive framework to enhance the standards of qualifications and serve the Malaysian community better. At the same time, with the experience of over 17 years of implementation since the MQF First Edition, interpretations of specifics of the Framework must now be updated and incorporated into the revised Framework.

8. These reviews seek to ensure the MQF continues to serve the National Education Philosophy (Preamble of Education Act 1996), as well as various policy goals stated in the Malaysia Education Blueprint 2015 – 2025 (Higher Education). In particular, the goal is to develop a system for monitoring and reporting the achievement of learning outcomes. These revisits also intend to address the directives in the Eleventh Malaysia Plan and Twelfth Malaysia Plan for more Flexible Learning Pathways (FLPs) and a stronger quality TVET workforce with qualifications to be driven by the requirements of the industry. Another area being addressed is the external comparability and recognition of Malaysian qualifications, especially with the increasing mobility of our students and workers in the skills and services sectors across borders.

[1] Refer to the United Nations Educational, Scientific and Cultural Organization's (UNESCO's) competency framework for the global competencies of labour, namely P1 to P3 (Diploma to Degree) and P4 to P5 (Master's to Doctoral degree). At least a P4 (with an experience of seven years) is desirable for recognition of prior learning under the lifelong learning sector.

9. A further reason for the review and revision of the MQF is the added responsibility entrusted upon MQA to undertake the recognition of "all qualifications" granted by Malaysian post-secondary institutions. Such an undertaking is expected to also fit in with the ASEAN Qualifications Reference Framework (AQRF) designed to promote the harmonisation of qualifications across ASEAN which helps to facilitate the mobility of workers and their integration within the region, besides the relevance of qualifications and learners to the current industry, business and broader society.

10. The Framework may be reviewed and amended from time to time by consulting, collaborating and coordinating with a broad range of stakeholders as well as professional bodies. These changes must be approved by the MQA Council and subject to the approval of the Minister responsible.

2. MALAYSIAN QUALIFICATIONS FRAMEWORK AND QUALITY ASSURANCE SYSTEM

11. The MQF is an integral part of the QA practice of MQA. The programme design, objectives and learning outcomes, teaching, learning and assessment methodologies, support resources and systems for delivery and improvement are embedded in the QA standards. Learning outcomes are verified and evaluated where applicable when HEPs submit their programmes for provisional accreditation, full accreditation and continuous maintenance through the periodic audit cycles.

12. In addition, a number of Programme Standards (PSs) have also been developed by different teams of experts as part and parcel of the QA system. This also includes the construction of learning outcomes and competencies statements for TVET qualifications that require special attention to technical knowledge and industry occupational standards. For the purpose of guiding HEPs to enhance their understanding of the MQF and develop good internal quality systems, MQA also introduced several Guidelines of Good Practices (GGP).

Malaysian Qualifications Register

13. All accredited qualifications are registered on the Malaysian Qualifications Register (MQR). Basic information about the qualifications, programmes and awarding institutions is stated in the Register to assist students and other parties, both locally and abroad, in obtaining key information about a programme.

Malaysian Qualification Statement

14. The Malaysian Qualification Statement (MQS) provides detailed information about a programme, including the learning outcomes, accreditation status, QA system and awarding institution issued by HEPs to students upon successful completion of the programme. It informs learners and users of qualifications of the learning achievement and competencies of the learners; this facilitates the assessment of qualifications by interested parties.

Roles and Responsibilities of the Malaysian Qualifications Agency

15. The MQA derives its authority from the Act of Parliament (Act 679), which grants it the power to implement the MQF to accredit higher educational programmes and qualifications, supervise and regulate the quality and standards of HEPs, establish and maintain the MQR, as well as provide for related matters. Thus, it proposes, advises, guides, administers and regulates the higher education and training sectors with specific references to QA.

1. DEFINITION

16. The main protocol mandated is the implementation of the MQF through subsection 35(1), which states, *"The Agency shall be responsible for the implementation of the national framework to be known as the 'Malaysian Qualifications Framework', consisting of qualifications, programmes and higher education providers based on a set of criteria and standards, including learning outcomes achieved and credits based on students' academic load."* (MQA Act 679, 2007).

17. The framework is defined as *"...an instrument that develops and classifies qualifications based on a set of criteria that is agreed nationally and benchmarked with international practices, and which clarifies the academic levels learning outcomes and credit system based on student academic load."* (MQF, 2007). It is intended as a comprehensive, overarching and integrated national qualifications framework. The Framework provides a set of levels and descriptors covering all sectors, using these levels and outcomes to integrate progression and pathways, accommodating all forms of learning. They are related to study and/or work contexts, making them applicable for both academic and TVET qualifications and purposes.

The Objectives of the Malaysian Qualifications Framework

18. The objectives of the MQF provided under section 36 of the MQA Act 2007 are as follows:

i. to secure standards of qualifications and reinforce policies on QA;
ii. to promote accuracy and consistency of nomenclature of qualifications;
iii. to provide mechanisms for the progression or interrelation between qualifications, including non-degree to degree qualifications;
iv. to encourage collaboration between public and private sector HEPs and skills training providers;

v. to encourage parity of esteem among academic, professional, technical, vocational and skills training providers;
vi. to establish a credit system that facilitates credit accumulation and transfer, acceptable both within and outside Malaysia;
vii. to provide clear and accessible public information on higher education programmes and qualifications;
viii. to promote, where applicable, the presentation of qualifications in forms that facilitate their evaluation by any person, including government agencies, HEPs, students, academic staff, QA and accreditation bodies, professional bodies, examination bodies and employers; and
ix. to articulate links with qualifications from outside Malaysia.

Key Features of the Malaysian Qualifications Framework Second Edition (2017)

19. The MQF Second Edition (2017) remains as an overarching framework for all qualifications across diverse sectors which is based on, and maintains the structure of the previous framework. The key features are as follows:

i. it is a unified and single framework of qualifications that recognises the qualifications progression routes, namely the academic and TVET sectors. It serves as an instrument to inform learners, employers and society of the learning acquired;
ii. it maintains the eight levels of learning, with a single qualification title (nomenclature) for each level;
iii. it sets generic learning outcomes descriptors for each level, applicable to academic and TVET qualifications, described in the context of “study and/or work”;
iv. it provides flexibility and options for variations within specific qualifications, such as a bachelor’s programme, which may have general academic and professional orientations;
v. it provides a credit rating system that determines the quantitative minimum-learning load at each level, supported by credit transfer/exemption policies;
vi. it enhances coherence in the academic and TVET sectors, improves the efficiency of articulation and learning pathways, and supports lifelong learning. This allows learners to progress through clear linkages between

qualifications and levels, fostering better collaboration between different institutions and sectors;

vii. it supports initiatives toward widening access and progression in lifelong learning through flexible learning and Accreditation of Prior Experiential Learning (APEL) or recognition of prior learning for workers with skill sets. It also supports the provisions of alternative credentialing for careers, employment and further education, and provides equivalency assessments for professional and skills competency certifications;

viii. it supports curricula transformations which take into account global perspectives and labour market requirements;

ix. it intends to improve mobility of learners and portability of qualifications and credits, ensure comparability and promote the recognition of Malaysian qualifications at national and international levels, to be referenced and aligned with regional qualifications frameworks;

x. it continues to prove the basis for standards development, QA and accreditation systems to ensure quality learning, build trust and confidence, and support recognition; and

xi. it is imperative that the MQF Second Edition (2017) operates as a single comprehensive integrated framework for different sectors and institutions, and applies to all qualifications offered in Malaysia. It must remain as a dynamic instrument that develops according to priority and national changes for improvement in the higher education and training systems.

Key Features of the Malaysian Qualifications Framework Second Edition (2024)

20. The MQF (2024) maintains the structure of the framework established in the previous editions of the MQF. Since the review in 2017, additional changes have been observed in the global higher education landscape. These changes are driven by the rapid globalisation of education, the rising demand for lifelong learning, the proliferation of digital and remote learning technologies, and a growing collective realisation that the Framework must be more values-based and integrate the Global Sustainability Agenda (GSA). Four main areas are emphasised in the MQF (2024) as follows:

i. Values-Based Education

VBE is an educational approach that focuses on instilling moral and ethical values in learners. Incorporating VBE into the MQF provides HEPs with the opportunity to ensure responsible, professionally competent and ethically sound graduates. This will enhance the global recognition of Malaysia as a provider of holistic and ethics-imbued education, thereby enhancing the competitiveness of its graduates and the standing of its higher education institutions. In this context, VBE refers to humanistic, societal and communal values that enhance industry skills. Restoring emphasis on values will lead to truly holistic and balanced graduates as envisaged in the National Education Philosophy.

VBE entails overcoming challenges, such as differentiating and relating characters, personalities, attitudes and behaviours to values, assessing abstract values, maintaining academic rigour and managing potential inconsistencies in implementation. These necessitate a strategic approach, effective communication and robust assessment methods. The integration of VBE into the Malaysian higher education system aligns the MQF with the emphasis of the National Education Philosophy on holistic individuals and developing unity in the diverse Malaysian community, thus presenting an opportunity to manifest this philosophy in practical terms.

ii. Flexible Learning Pathway

Flexible learning is a learning process that is free from the constraints of time, place, pace, learning styles, content, assessment or learning pathways. In higher education, FLP refer to "flexible entry, progression and completion of higher education at all ages and educational levels, as well as recognition, validation and accreditation of the knowledge, skills and competencies acquired through non-formal, informal and formal education" (UNESCO, 2022).

iii. Global Sustainability Agenda

Sustainability is about maintaining a balance between development and the environment, taking into consideration ecological, economic, social and cultural dimensions to ensure the long-term well-being of current and future populations. Sustainability is essential to address global challenges, such as climate change, resource depletion and social inequality. It requires a

holistic approach that considers the interconnectedness of environmental, economic, social and cultural factors to create a more resilient and equitable world for future generations. HEPs should take cognisance of the GSA at the curriculum level (learner development, academic planning, programmes and courses, learning outcomes, teaching and learning and assessment activities). HEPs may adopt different models for achieving the GSA to create a purpose for their diverse stakeholders, so long these models are embedded, integrated or infused into the learning outcomes and are achieved and monitored.

iv. Harmonisation of the MQF with Other Sectoral/Occupational Frameworks

As the national qualifications framework, the MQF aspires to be inclusive, integrative and facilitative of skills, occupational and competency frameworks developed and used by other agencies and industry associations, whether public or private, for purposes of training and development, regulation and licensing. Seeking to align with or reference the MQF is an option, which can be exercised by any local framework custodians. Any agency that seeks formal referencing to the MQF will be able to declare formally and publicly how their framework is aligned with the levels of qualification under the MQF. It does not, however, attest to the quality of the certifications provided by the said agency or industry association.

2. SCOPE OF FRAMEWORK

2.1 SECTORS AND QUALIFICATIONS

21. The MQF First Edition recognised three awarding sectors, namely the academic, vocational and technical (mainly the polytechnics and community colleges regulated by the Ministry of Higher Education), and the skills (training centres under the Ministry of Human Resources) sectors.

22. With the Eleventh Malaysia Development Plans (2015 – 2020), the scope of the MQF refers to qualifications from two sectors, i.e., academic and TVET sectors. The Framework, a single and unifying framework for all qualifications in Malaysia, describes the levels of learning, generic learning outcomes, level

descriptors, credits and single qualification title for each level to be applied in both academic and TVET qualifications.

Academic Qualifications

23. For the purpose of the MQF, academic qualifications are qualifications that include general education or discipline-oriented programmes from levels 1 to 8 for the purposes of advancement to higher education, career, professional practice and employment opportunities in various sectors. They are offered by various HEPs. The Bachelor's degrees and a few diploma qualifications recognised by various statutory professional bodies in Malaysia enable graduates to be registered as professionals to practise their professions.

Technical and Vocational Education and Training Qualifications

24. The Framework addresses post-secondary TVET qualifications within the higher education and training sector. The qualifications are mainly issued by HEPs, including both public and private universities/colleges, polytechnics, community colleges and vocational colleges, and they are governed by the Education Act 1996 and the Private Higher Educational Institutional Act 1996. In addition, accredited skills training institutions regulated under the National Skills Development Act 2006 issue qualifications to trainees. Some institutions deliver training programmes incorporating specific National Occupational Skills Standard (NOSS), with certifications conferred by the Department of Skills Development of the Ministry of Human Resources.

25. TVET education and training in Malaysia has an emphasis on industry practices, with the main objective to produce industry-relevant competent workforce to buttress the country's socio-economic goals. The generic learning outcome clusters that apply to all TVET qualifications include knowledge and cognitive skills, functional and work skills and specific industry-appropriate competencies. The differences in various programmes and levels include specialised technical and vocational knowledge, as well as agreed occupational standards of specific industries. TVET programmes emphasise substantial practical component in the industry environment that enhances learning and industrial exposure as part of the curriculum.

26. TVET learners should be able to continue with their education in either the TVET or academic track.

Professional Qualifications, Skill Certifications and "Partial Qualifications"

27. Programmes and qualifications of HEPs designed to obtain professional recognition are subject to, or guided by, programme/accreditation standards set by professional statutory bodies in Malaysia, where available/applicable. In principle, the expected outcomes and competencies contain the essence of the level and the learning outcomes, and they comply with the credit load of the MQF. The learning outcomes may be described in the context of graduate attributes or competencies.

28. Recognising the many new forms of training provided by entities other than colleges, polytechnics and universities, the Framework also facilitates assessment for equivalency and may support the formal recognition of professional certifications by industry and other non-formal training providers. This includes new and emerging delivery systems (such as badges, massive open online courses [MOOCs], and nano and micro-credentials), provided they comply with the Framework's learning outcomes, assessment cultures and expectations.

29. The Framework is also applicable in principle to the issuance of "partial qualifications" to support upgrading and upskilling initiatives of individuals, such as short programmes and modular learning, as it may be accumulated (stackable) and used to obtain full qualifications. However, it is important that the learning outcomes and credits are quality-assured.

30. All accredited and quality-assured qualifications should fulfil specific requirements of the Framework, and it includes the qualification type, title, level descriptors, credit requirements, as well as admission and pathways of progression at each level.

31. These qualifications are certificates, diplomas or degrees awarded by an HEP or any party that is authorised to confer the qualification, having affirmed that one has been successful in completing the study and training, has satisfied the

determined levels of achievement and credits, and is capable to undertake a role, duty or work. The qualifications indicate positive achievement of learning outcomes as prescribed by the specific programme.

32. The award of honorary degrees, such as an honorary doctorate, should be distinguished from the Doctoral degrees in the MQF and is not part of the Framework.

2.2 LEVELS AND QUALIFICATIONS

33. The MQF maintains eight levels of learning achievement, namely Certificate (Levels 1 – 3), Diploma and Advanced Diploma (Levels 4 – 5), and Bachelor's, Master's and Doctoral degrees (Levels 6, 7 and 8). Post-Doctoral degrees are not included in the Framework. The level and qualification type are indicated in **Appendix 1**.

34. Variants: In cases where there are qualifications from two different sectors at the same level, they must be broadly comparable to the general requirements of the respective levels in the MQF. There are also variants of qualifications within specific levels. For example, Level 6 accommodates both general academic programmes and professional-type programmes, whereas at Level 7, there are different modes of Master's degrees, such as master by research, mixed mode and coursework.

35. The Framework enables clear vertical progression by the levels, beginning with the base or basic level knowledge and skills to the most complex and specialised knowledge and sophistication of practices. It reflects the accumulation of knowledge and skills from each level progressively. On the other hand, a horizontal reading of a level informs the level's standards of the set of learning outcomes required in a programme designed for that level.

36. Each level in the MQF is provided with generic statements that describe the learning outcomes at that level and reflecting its complexities. Therefore, the levels must be read together with the level descriptors which broadly characterise the learning achievement and guide the assessment standards for each level. The various PSs by discipline or field of study also explain the

learning outcomes in accordance with the needs of the discipline or field of study[2].

2.3 LEVEL DESCRIPTORS AND PURPOSES

37. Each level in the MQF is provided with a generic descriptive statement in qualitative terms, describing the learning achievement at that particular level. The level descriptors define the expected knowledge, capabilities and/or competencies of learners upon successful completion of the learning programmes in the context of work and study. The broad statements account for the content-free nature of learning standards in the MQF. It is within the specific programme design of HEPs that the descriptors are translated and contextualised by the specific subject or discipline, technical and vocational, and professional fields.

38. The level descriptors differentiate depth, complexity and comprehension of:

    i. Knowledge;
    ii. Cognitive skills;
    iii. Application of functional skills, as well as the breadth and sophistication of practice;
    iv. Personal skills;
    v. Ethics and professionalism; and
    vi. Scope and complexity of application, as well as responsibilities.

39. The main purposes of the level descriptors are to:

    i. guide drafting the learning outcomes of programmes, support assessment criteria, as well as assign levels to programmes and qualifications against the Framework;
    ii. provide a set of overarching and generic level descriptors from the learning outcome clusters, which are intended to fit and accommodate the variety of different learning contexts, such as academic, professional, technical and vocational, and work;

[2] Refer to QA documents at www.mqa.gov.my.

iii. build/provide a common and shared understanding of qualifications and assist in the broad comparison of qualifications of various fields and equivalency assessment of qualifications and certifications;
iv. serve as a key reference point in the recognition of qualifications against the Framework;
v. facilitate the referencing of the MQF to other external frameworks;
vi. be applicable to a wide variety of learning settings, such as conventional classroom and Work-Based Learning (WBL), computer-mediated learning, apprenticeship programmes, fieldwork, various forms of practical/industrial training, practice-based learning, clinical training and so forth as found in the various programmes and institutions; and
vii. be applied in the assessment of prior experiential learning, for both admission and credit award purposes, as well as institutional and programme-specific transfer or advanced standing provisions.

The level descriptors are provided in **Appendix 2.**

2.4 LEARNING OUTCOMES

40. The learning outcomes of the MQF Second Edition (2017) build on the existing domains, principles and practices of the MQF First Edition. Learning outcomes are “statements on what students should know, understand and can do upon successful completion of a period of study, which generally lead to a qualification or part of a qualification.”

41. The generic learning outcomes are intended to provide a framework to reduce the gap between the world of education, work and responsible global citizenship, and also to further harmonise/integrate the systems. This is demonstrable by the skills and knowledge of learners to successfully perform in professional, educational and other life contexts.

42. Thus, the levels, clusters of specific learning outcomes and credits serve as external standards and guide the inputs by institutions into the curriculum, teaching, learning and assessment. Many of the learning outcomes are critical cross-field outcomes, being generic and relevant in different types of programmes. It will create an impact on the teaching and learning activities and strategies in assessments.

43. It is expected that the approach to teaching-learning and assessment supports the personal growth and progress of broader capabilities or competencies, such as more knowledge, better cognitive skills and the acquisition of new work and personal skills. The broader expectation is that the learners are expected to be able to continue to perform and improve these competencies in their working life and further education.

2.5 DOMAINS/CLUSTERS OF LEARNING OUTCOMES

44. A set of eight domains of generic learning outcomes and 16 specific learning outcomes was established and operationalised in the MQF First Edition. These continue to remain relevant and universally comparable. In the MQF Second Edition (2017), they have been clustered, re-profiled and retained. The listed outcomes resonate and mostly align with the aspirations of the National Education Philosophy, the Malaysia Education Blueprint 2013 – 2025, as well as the Malaysia Education Blueprint 2015 – 2025 (Higher Education). The MQF Second Edition (2017) is linked to, and a continuum of, the educational outcomes from basic education to higher education as set in the national blueprints.

45. It also is comparable to other national qualifications frameworks and regional qualifications frameworks. [3]

46. These learning outcomes clarify the demands and complexities of learning at each level. They apply within the context of study and/or work/practice situations. For example, knowledge and understanding is required concurrently, as these traits are dominant and important in pursuing higher education and advanced skills training. The Five Clusters of Learning Outcomes are:

[3] The MQF Second Edition (2017) is benchmarked against the AQRF and the learning outcomes. The AQRF prescribes four domains of applied competencies, such as the cognitive, functional, personal and ethical competencies, but defines the learning outcomes into two types: knowledge and skills and application and responsibility. The personal and ethical skills are to be determined by the national system.

i. Knowledge and understanding[4];
ii. Cognitive skills;
iii. Functional work skills, with focuses on:
    a. practical skills;
    b. interpersonal skills;
    c. communication skills;
    d. digital skills;
    e. numeracy skills;
    f. leadership, autonomy and responsibility;
iv. Personal and entrepreneurial skills; and
v. Ethics and professionalism[5].

2.5.1 Application of the Learning Outcomes in Context

47. The application of the learning outcomes at each level is situational-based and depends on the complexity of tasks, study and work to be performed. The level descriptors explain the context of the application of the learning outcomes broadly and are often influenced by levels of autonomy and responsibility. The levels build the knowledge, skills and development of learners progressively and incrementally.

48. As a general practice, individual programme design should address the clusters of learning outcomes appropriately. It should describe the general and specific content for knowledge and skills in the subject(s) and related field(s), the level of cognitive skills, and where relevant, the specialised technical skills. The remaining generic skills are capabilities that all learners should acquire through the study programme and training, whether through specialised courses or embedded, integrated and infused in the teaching-learning and assessment strategies, including WBL options and co-curricular activities that incorporate the GSA.

[4] Knowledge and understanding is the name of Cluster 1. They do not refer to the taxonomy levels in Bloom's Taxonomy. Both Clusters 1 and 2 need to address the lowest to the highest taxonomy levels of any cognitive taxonomy.

[5] Embedded within the Five Clusters are clear expectations that learners will demonstrate ethical and civic responsibilities through contributions to their local and global communities.

49. The MQF advocates for the concept and practice of sustainability. HEPs are recommended to include the GSA at all MQF levels in their graduate profiles and/or any of the learning outcome domains, learning content and/or assessment to produce graduates with balanced and holistic academic and social skills. Elements of sustainability could also be offered as a "partial qualification" under the FLPs and incorporated as part of the Continuous Professional Development (CPD) for trainers and academic staff.

2.5.2 Description of Learning Outcome Clusters and Application Context

I. Knowledge and Understanding

50. Knowledge and understanding refers to a systematic understanding of facts, ideas, information, principles, concepts, theories, technical knowledge, regulations, numeracy, processes and systems.

51. Knowledge and understanding may relate to a subject, a field of study or discipline, and technical and occupational or workplace aspects. It starts with basic general knowledge and progresses to varied, broader, specialised and advanced knowledge, including topics related to sustainable practices, rules and regulations, and health and safety, which are especially relevant to TVET and professional programmes.

52. The scope of knowledge should include the common everyday knowledge within the learner environment, which may be acquired through formal, informal and non-formal learning circumstances and experiences. The development of personal values and ethics may derive from knowledge and experiences.

53. Knowledge and understanding enables learners to relate to their prior knowledge in the course of learning or work, as well as to expand to related fields. Knowledge provides the basis for applications of all other learning outcomes.

II. Cognitive Skills

54. Cognitive skills relate to thinking or intellectual capabilities and the ability to apply knowledge and skills. The capacity to develop levels of intellectual skills

progressively begins from understanding, critical/creative thinking, assessment, applying, analysing, problem-solving and synthesizing to create new ideas, solutions, strategies or new practices. Such intellectual skills enable the learner to search and comprehend new information from different fields of knowledge and practices.

III. Functional Work Skills

a. Practical work skills

55. These are generally work skills and operational skills applicable to the common employment environment, such as planning, organisational skills, practical skills, as well as selection of tools, materials, technology methods and procedures. In the study context, it may include study skills and preparations, undertaking procedures, scientific skills, designs, research and so forth. It also includes specialised skills set by specific subjects and disciplines, technical or occupation-related work skills, as well as professional practices that enhance professional competence. It should include safe and sustainable practices.

b. Interpersonal skills

56. Interpersonal skills refer to a range of skills which, amongst others, include interactive communications, relationships and collaborative skills, as well as networking with people of different faiths and cultures.

c. Communication skills

57. Communication skills refer generally to the ability to communicate/convey information/ideas/reports cogently and professionally in an appropriate language. The communication must be effective in appropriate forms, across various mediums, to a range of audiences and in different situations. The ability to communicate in more than one language is encouraged.

d. Digital skills

58. Digital skills generally refer to the ability to use information/digital technologies to support work and studies. Digital skills include sourcing and storing

information, processing data, using applications for problem-solving and communication, as well as ethics in applying said skills.

e. Numeracy skills

59. Numeracy skills are quantitative skills that require learners to acquire increasingly higher levels of numerical abilities. They are acknowledged as important living skills relevant to study, work and daily life. Within the MQF levels, this learning outcome may not be specifically mentioned for every level, but it is expected that numerical skills are indicated as an outcome for every specific programme. It may include an understanding of basic mathematics, symbols relating to statistical techniques, etc.

f. Leadership, autonomy and responsibility

60. This cluster of skills refers to an individual's ability to build relationships and work effectively in teams, whether as peers or in managerial roles, with varying degrees of autonomy. It includes making decisions, setting goals at organisational/unit/team levels, taking responsibility and providing accountability. Additionally, it involves being confident, knowledgeable, articulate, honest, professional, concerned, resilient and risk-taking, as well as possessing other intrapersonal skills, including the ability to work in and lead teams.

IV. Personal and Entrepreneurial Skills

61. Personal skills are life skills that learners are expected to use daily. These skills are often portrayed through enthusiasm for independent learning, intellectual and self-development, as well as flexibility, adaptability, confidence, self-control, proper etiquette and a commitment to professionalism in the workplace. It also includes the capability to plan for career development or further education. Aspects of character, such as honesty, punctuality, time management and maintaining deadlines which are important in a work environment, are also crucial personal skills.

62. Entrepreneurial skills require relevant knowledge, skills and expertise in key areas of an enterprise. Important personal qualities include creativity, grit and

drive. The learning outcomes describe the incremental development of these skills. The drive to be an entrepreneur is considered a personal skill but also requires relevant knowledge, cognitive skills and functional skills.

V. Ethics and Professionalism

63. Ethics and values are important in personal, organisational, societal/community and global settings, as they guide personal actions and interactions at work and within the community at large. Awareness, understanding and respect for ethical, social and cultural differences and issues are important in exercising professional skills and responsibilities. This includes integrity, professional conduct (professionalism) and standards of conduct, such as upholding regulations, laws and codes of good practice or professional conduct. A sensitive approach in dealings with other cultures also adds value to this learning domain.

3. QUALIFICATION TITLES (NOMENCLATURE)

64. The MQF sets a single qualification title for each qualification, provided it fulfils the qualification standards determined for that level. In the case of master's qualifications and their type of learning modalities, the award bearing the master's award title will also indicate a Master's degree by research, mixed mode or coursework, as well as Specialist Masters, which is unique to the field of Medicine.

65. Generally, Certificate and Diploma nomenclature will indicate one field of study/discipline only, without any specialisation. For example, Diploma in Business Studies or Certificate in Social Work.

66. In the case of bachelor's programmes, the award may use the designated field as a qualifier, e.g., Bachelor in Accounting. Knowledge of the designated field will account for 70% of the total knowledge of the programme. A programme with specialisation is indicated in parentheses, where the specialisation component accounts for 25 – 30%, e.g., Bachelor in Computer Science (Programming). For double major programmes containing fundamental components of two main fields with a percentage of 50:50, the qualification is named using the connector "AND", e.g., Bachelor in Commerce and Finance.

A major-minor programme containing at least 25 – 30% component in other fields of study is named using the connector “WITH”, e.g., Bachelor in Biology with Psychology.

4. CREDIT SYSTEM

67. Provision for a credit system is stated in section 36(f) of MQA Act 2007 “to establish a credit system to facilitate credit accumulation and transfer which is acceptable within and outside Malaysia.” The credit system plays an increasingly important role in higher education, both at national and international levels. Its key importance lies in its ability to quantify and record student-learning achievements. The credit system:

i. helps to measure student learning and programme transparency;
ii. provides flexibility to HEPs in programme design and delivery;
iii. helps to achieve a common understanding and secure standards of qualifications;
iv. facilitates credit transfer and recognition within and among the skills, technical and vocational, academic and professional sectors;
v. facilitates comparability of qualifications, locally or internationally, by comparing credit load;
vi. aids access and credit transfers based on assessments of prior formal, informal and non-formal learnings; and
vii. promotes mobility of students and workers between institutions, regionally and globally.

68. Credit has both qualitative and quantitative values. The MQF is also seen as a credit-reference qualifications framework, as the mandatory minimum credit accumulation for each level and transferable credits are prescribed and regulated. At institutional and programme levels, policies and requirements on credit exemptions and transfers between programmes and institutions, locally and abroad, must be provided.

69. Key elements to be observed in the credit system are as follows:

i. The MQA Act 2007 defines credit as “a representative measure to reflect the academic load.” Within the MQF First Edition, credit is “a quantitative

measure that represents the volume of learning or academic load to attain the set of learning outcomes." It is a measure of the total academic/learning load or volume of learning a student must undertake to achieve a defined group of learning outcomes.

ii. In this aspect, "academic load" is a quantitative measure of all the learning activities required to achieve a defined set of learning outcomes, consisting of lectures, tutorials, seminars, practical, clinical practice, self-study, retrieval of information, studio work, research, fieldwork, WBL, as well as preparing and sitting for an examination.

iii. The Malaysian credit value is one credit equivalent to 40 Notional Learning Hours. This takes into consideration the semester system and the availability of learning hours of average students, as well as the various learning activities involved, including guided or independent learning and non-face-to-face learning.

iv. Credits may also be acquired by learners through assessment and validation of prior experiential learning in other settings.

v. The minimal credit load for each level is defined by the Framework (and is independent of the mode of delivery of learning). However, higher credit requirements for specific qualifications are established and indicated based on fields of study or for professional programmes accordingly.

vi. Credit transfer is subject to the policy and framework set to enable learners to accumulate credits and transfer credit.

vii. Credit exemption allows a student to be granted credit on an application for exemption for a course based on learning achieved in another programme. However, this does not preclude institutions from requiring that those granted credit transfers or exemptions meet all graduation requirements, including the satisfactory completion of the institution's minimum number of courses.

Appendix 1 lists the graduating credit requirement for each qualification type.

5. QUALIFICATION PROFILE BY LEVELS OF THE MQF

70. The qualifications in the MQF are defined by their purposes, levels, learning outcomes, credits, field or discipline, nature of the programme, minimum entry requirements and typical duration for full-time or part-time study. The descriptors at Levels 1 to 6 of the MQF provide for both TVET and academic

(general) learning pathways and use the same qualification titles. TVET programmes are distinguished by their focus on specialised technical knowledge and skills, adherence to industry and occupational standards, and a higher practical component. The entry requirements are prescribed by or subject to specific PSs and professional requirements, or via APEL. Pathways generally indicate the next level of progression in academics, TVET or employment.

Malaysian Qualifications Framework, Level 1 Certificate

71. Level 1 Certificate is regarded as an initial preparatory programme designed to prepare learners of any age for future learning and/or work. In essence, this level is an access programme to facilitate future undertaking. It carries a minimum learning load of 15 credits and provides learners with access to elementary knowledge. This includes understanding basic facts and ideas of a subject or field of study, learning simple processes to perform basic and highly routine tasks, as well as understanding the consequences of said tasks.

Malaysian Qualifications Framework, Level 2 Certificate

72. Level 2 Certificate sets a minimum learning load of 30 credits. Learners are expected to demonstrate an understanding of factual knowledge and basic principles and processes in a subject or field of study. They should be capable of undertaking learning, performing a limited range of familiar routine tasks, solving simple problems and taking certain responsibilities. It is also regarded as a preparatory programme to prepare learners to undertake future learning and/or work.

Malaysian Qualifications Framework, Level 3 Certificate

73. Level 3 Certificate sets a minimum learning load of 60 credits. Learners are expected to demonstrate an understanding of the main basic facts, theories, principles, processes and skills in a subject or discipline for further study and work. A learner in the case of a TVET qualification must be capable of demonstrating technical knowledge and acquisition of a variety of technical skills and processes. They are expected to perform a wider range of work

activities with increasing complexity, some autonomy and responsibilities within the related context.

Foundation and University Preparatory Programme

74. Foundation and university preparatory programmes, *Sijil Tinggi Persekolahan Malaysia,* Matriculation and foreign qualifications like A Levels are entry qualifications to tertiary education/bachelor's programmes at universities. However, they are not included in the Framework. Nonetheless, the MQF determines the standards for these qualifications to ensure comparability and standardisation of student abilities. The minimum credit requirement is 50 credits, and they are typically conducted within a period of one to two years.

75. Learners should demonstrate an understanding of facts, principles and processes in a specific field of study. They should be able to source and process data/information using basic digital technology applications, analyse information, identify and solve problems, and develop communication and learning skills.

Malaysian Qualifications Framework, Level 4 Diploma

76. The Diploma qualification at Level 4 applies to both academic and TVET. The minimum credit requirement is 90 credits, and the minimum duration is two years of full-time study or as determined by the discipline or professional requirements.

77. The breadth and depth of knowledge are wider in one or more areas of study or discipline, encompassing main theories, principles, concepts, facts and ideas. Learners should develop higher cognitive skills and acquire varied generic work and higher-level technical skills to perform complex and semi-professional work. They should also develop leadership, collaborative, managerial and interpersonal skills, as well as accountability appropriate to the functions performed. The scope of learning and skills leads to employment and career development in services, technical and vocational sectors, regulated occupations and in para-professional fields.

Malaysian Qualifications Framework, Level 5 Advanced Diploma

78. The Advanced Diploma qualification carries a learning load of 40 credits, which generally requires one year of full-time study. It is intended to provide learners with the opportunity to demonstrate advanced specialised knowledge associated with a subject or field of study/discipline, critical, analytical and creative thinking skills, generic and specialised technical or professional practice, and leadership skills. This qualification enables learners to undertake substantial responsibility to deal with wide and unpredictable work contexts. It leads to better opportunities for higher managerial, technical/vocational or professional field positions and responsibilities, or to pursue higher education.

Malaysian Qualifications Framework, Level 6 Bachelor's Degree

79. The Bachelor's degree qualification at Level 6 carries a minimum learning load of 120 credits. It prepares learners for employment in specific careers/ occupations or professional fields, as well as to pursue postgraduate education.

80. It involves an analytical understanding of broad and comprehensive knowledge in a specialised field(s) of study. It requires the demonstration of strong intellectual and problem-solving skills, research skills, as well as acquisition of various work skills, appropriate applications and technologies, and professional practices. Learners are also expected to develop effective interpersonal and communication skills, as well as leadership and managerial abilities. They are equipped to lead and make decisions with social, ethical and scientific considerations, demonstrating professionalism while taking on additional responsibilities in various organisational settings. These outcomes of the broad application of learning are generally evidenced through various forms of formative and summative assessments, including the form of final capstone project, case study, fieldwork, clinical training and project reports.

81. Variants: Level 6 Bachelor's Degree requires a minimum of three years of full-time study. However, the duration is subject to requirements determined by the types of programmes, institutional requirements, PSs and/or professional bodies, as well as industry requirements. A Bachelor's degree that fulfils the professional accreditation requirements set by key Malaysian professional statutory bodies, such as the Board of Engineers Malaysia, the Malaysian

Medical Council or the Board of Architects Malaysia, and is accredited jointly with MQA, underpins the recognition of the qualification by the respective professional bodies and MQA.

Malaysian Qualifications Framework, Level 6 Graduate Certificate and Graduate Diploma

82. Graduate Certificate and Graduate Diploma are qualifications that indicate the attainment of competencies at Level 6 set by the MQF. Graduates of such programmes will have achieved learning outcomes at Level 6. The credit requirement for a Graduate Certificate is 34 credits, with a minimum duration of one year of full-time study. While the learning load for the Graduate Diploma is 64 credits, with a minimum duration of one and half years of full-time study.

83. The purpose of the Graduate Certificate and Graduate Diploma is to produce graduates capable of applying technical and theoretical concepts in a narrow range of contexts to undertake professional work, and/or to pursue further studies/training leading to a Bachelor's degree. Both qualifications offer a shorter period of study for individuals aiming to continue professional development, change their field of training or expertise, or gain entry qualification to a higher level of study with permissible advanced-standing credit transfer.

Malaysian Qualifications Framework, Level 7 Master's Degree

84. Master's qualification at Level 7 is typically an extension of study undertaken at the bachelor's level in a similar discipline, one or more related disciplines, or based on extensive professional practice experience. The Master's degree programme may be a research-based, mixed mode (coursework and research) or coursework/taught type. The minimum credits for the learning load of coursework/taught and mixed mode master's programmes are 40 credits, and they typically entail one year of full-time study. No credit requirement is provided for a master's programme by research, and such a mode typically requires two years of full-time study.

85. A Master's degree demonstrates in-depth and significant advanced specialised theoretical or applied knowledge, which is current and often at the forefront of

a specific field of study, an interdisciplinary or multidisciplinary approach, or professional practice. Learners should demonstrate critical, evaluative and cognitive skills, and apply research skills or advanced professional practice to solve complex issues and problems with a reasonable degree of originality and independence. They should also demonstrate leadership and managerial skills, which are critical competencies, particularly within a multicultural or transnational work or learning environment. Depending on the type of programme, learners are expected to be competent to inform, share views on contemporary and new issues in related fields, advise new solutions or improved innovations to a range of audiences, and conduct further research besides practising.

86. The output of a Master's degree is generally in the form of a thesis/dissertation, long case study, project reports, innovative technical solutions/professional practices and creative art forms.

Malaysian Qualifications Framework, Level 7 Postgraduate Certificate and Postgraduate Diploma

87. Postgraduate Certificate carries a minimum of 20 credits and generally requires at least one semester of full-time study. Meanwhile, a Postgraduate Diploma carries 30 credits and requires between nine months to one year of full-time study. These two qualifications serve learners who must have completed a bachelor's programme or equivalent.

88. These qualifications enable learners to acquire and extend knowledge and skills gained from a bachelor's programme; acquire knowledge and skills (professional/technical/academic) in a new subject area; or acquire further specialisation within a specific systematic body of knowledge, for the purpose of career development or further study. The learning outcomes must be at least at a master's level. These qualifications are part of the MQF, which supports lifelong learning at higher levels.

Malaysian Qualifications Framework, Level 8 Doctoral Degree/ Doctors of Philosophy

89. This is the highest level of learning in the MQF, leading to the conferment of a Doctoral degree. Generally, a Master's degree is required for entry into a doctoral programme, whilst a bachelor graduate is required to first register for a research-based master's programme, and upon completing the initial stage, the candidate can be admitted as a full doctoral candidate. The credit requirement for the taught component in a doctoral programme by coursework and mixed mode is 80. The duration of study is typically three years for a full-time candidature. No credit reference is provided for a Doctoral degree by research.

90. This qualification involves substantial, advanced, independent and original research and scholarship in a most advanced area of knowledge and emerging issues of a specific area of study, single discipline or multidiscipline, and assessed against international standards. Learners should demonstrate innovative and advanced research skills, critical reflections and competence in conceptualising, designing and implementing projects. They shall continue to lead, share and contribute new knowledge, innovations and practices in their field, addressing emerging issues and advancing social, technological and cultural progress in both academic and professional contexts, while concurrently dealing with complex ethical issues. In addition, learners must be capable of providing informed judgments and advice to a range of audiences.

91. The output is generally in the form of a thesis or dissertation in a specific field of study, professional practice or performance-based/creative art forms. This reflects the various types of doctoral programmes developed in the system, including traditional Doctors of Philosophy (PhDs), practice-based PhDs, professional doctorates and PhDs by publication.

92. The qualification titles are in the forms of a PhD for research-based programmes and a Doctoral degree for mixed mode or coursework-based programmes.

93. Post-doctoral programme is considered as an extended research after a PhD and is not assigned a Level in the MQF.

Flexible Pathways and Learning for Lifelong Learning

94. One of the key objectives of the MQF is to link the qualifications to provide progression and FLPs to learners with various needs and backgrounds. The Framework encourages greater collaboration between public, private and TVET institutions, particularly through articulation arrangements to facilitate advanced placements for their learners. Its common levels, level descriptors and credits are key elements in equivalency assessments of qualifications. It also enables the determination of parity at the same level for sector-based accredited qualifications, as there may be more than one type of qualification at the same level awarded by different sectors. Additionally, it facilitates lifelong learning and stimulates a learning culture.

95. The Framework also encourages greater collaboration with custodians of local skills, occupational, competency and professional certifications or qualifications frameworks for alignment with the MQF through suitable interconnectivity and interoperability mechanisms. This facilitates recognition and/or articulation of these certifications into qualifications, creating flexible pathways that support lifelong learning.

96. The level descriptors learning outcomes and credits are applied in the assessment of APEL for purposes of access, progress and exit, as well as to attain advanced standing to higher level programmes. It reduces learning duplication and time, thereby widening access and progression for learners who actively seek to upgrade their qualifications, pursue advanced skills and competencies for career development, meet industry needs and achieve better life opportunities. Refer to **Appendix 2.**

97. The MQF provides alternative pathways with points of entry, opportunities for advanced standing, accreditation of prior learning, flexible learning and a variety of qualifications. It includes exits with a framework of linked levels, qualification types, credits and outcomes as indicated below. The provisions for pathways, articulation and lifelong learning under the MQF include the following:

i. a credit transfer system for vertical or horizontal transfers between programmes, institutions and sectors. This includes the articulation policy and mechanisms for mobility between academic and TVET sectors and vice versa, usually evidenced by policies and/or agreements on articulation between institutions;
ii. a stackable qualification for the TVET sector from Levels 1 to 4 allows multi-entry and multi-exit options, providing credit transfers from these levels;
iii. flexible access to quality-assured provisions of flexible, open and online learning;
iv. the accreditation of learning acquired through formal, non-formal and informal learning can provide access and advanced standing in a programme. The APEL is applied to both the academic and TVET sectors, although the assessment approach must be fit for purpose;
v. the use of Graduate Certificates, Graduate Diplomas, Advanced Diplomas, Postgraduate Certificates and Postgraduate Diplomas also fosters lifelong learning, training and professional and career development; and
vi. the accumulation of credits and learning outcomes is possible through "partial qualifications", professional certifications, modularisation of programmes, short courses, micro-learning and micro-credentials, including MOOCs. Such credits can be considered for transfer to a full programme. It also includes the provision of bridging programmes to suit circumstances where it may be necessary to prepare individuals to pursue higher-level programmes or to meet other entry requirements set by HEPs.

Refer to **Appendix 3.**

APPENDIX 1

Malaysian Qualifications Framework (MQF) Second Edition

MQF Level	Minimum Graduating Credits*	Academic Sector	TVET Sector
8	No credit rating	PhD by Research	
	80	Doctoral Degree by Mixed Mode & Coursework	
7	No credit rating	Master's by Research	
	40	Master's by Mixed Mode & Coursework	
	30	Postgraduate Diploma	
	20	Postgraduate Certificate	
6	120	Bachelor's Degree	Bachelor's Degree
	64	Graduate Diploma	Graduate Diploma
	34	Graduate Certificate	Graduate Certificate
5	40	Advanced Diploma	Advanced Diploma
4	90	Diploma	Diploma
3	60	Certificate	Certificate
2	30	Certificate	Certificate
1	15	Certificate	Certificate

***** Inclusive of general studies subjects for an undergraduate programme.

APPENDIX 2

Malaysian Qualifications Framework Second Edition: Level Descriptors

MQF LEVEL	Summary of Learner Profile	CLUSTER 1: Knowledge and Understanding	CLUSTER 2: Cognitive Skills	CLUSTER 3: FUNCTIONAL WORK SKILLS				CLUSTER 4: Personal and Entrepreneurial Skills	CLUSTER 5: Ethics and Professionalism
				Practical Skills	Interpersonal and Communication Skills	Digital and Numeracy Skills	Leadership, Autonomy and Responsibility		
Level 1 **CERTIFICATE**	Learners will have basic, foundational or general knowledge and skills. Perform basic and/or highly routine tasks under guidance. Prepare for further learning and being responsible ethical workers. Awareness of community as well as local and national institutions. Demonstrate curiosity of the world beyond the self.	Describe simple, factual and basic knowledge and skills within a narrow range of subjects/fields to undertake highly routine and predictable task(s) and study.	Apply basic knowledge in the context of well-defined, highly routine and predictable tasks with guidance. Demonstrate ability to reflect and improve performance.	Demonstrate simple skills by using a variety of common basic tools and materials for very well-defined tasks.	Communicate familiar everyday expressions and simple phrases within a limited range of contexts. Express an interest in at least one other language besides the national language.	Show competency to use basic mathematical tools [e.g., symbols]. Use a few simple/basic applications, which are adequate to perform given task(s) under guidance.	Work under direct guidance in highly structured activities/tasks with support. Demonstrate capacity to work independently or in a team.	Initiate some responsibility for learning with prompting and guidance. Demonstrate ability to reflect on the tasks undertaken/performed with guidance. Show an ability to identify some applicable personal values in task or learning contexts.	Be a responsible member of the society and show sensitivity to other cultures than own.
Level 2 **CERTIFICATE**	Learners will have factual knowledge and skills to carry out work in a well-defined environment as responsible and ethical workers. Demonstrate interest to undertake further studies as well as make a commitment to lifelong learning.	Describe/demonstrate or show factual knowledge of subjects/disciplines to address a variety of routine and non-routine tasks/work or for study.	Apply knowledge and skills to well defined routine tasks and/or study. Apply familiar solutions to solve predictable problems in well-defined	Demonstrate capacity to plan and complete well-defined tasks using common basic tools, methods and materials mostly with guidance.	Communicate within a limited range of contexts requiring simple and direct exchange of information on familiar and routine matters. Develop basic proficiency in one other language	Use a limited range of basic applications and digital tools which are adequate to perform a given set of task(s) under supervision that enables access, and to process simple data. Interpret limited simple and familiar	Work with limited autonomy and substantial support under general supervision in structured activities. Work in a team and exchange views, feedback with others with limited responsibility and accountability.	Initiate some responsibility for learning with guidance. Demonstrate an ability to reflect on tasks and personal actions and values.	Show an ability to apply some personal values in task(s) or learning contexts. Deepen an understanding of cultural diversities by continued exposure to other cultures and value systems.

MQF LEVEL	Summary of Learner Profile	CLUSTER 1: Knowledge and Understanding	CLUSTER 2: Cognitive Skills	CLUSTER 3: FUNCTIONAL WORK SKILLS				CLUSTER 4: Personal and Entrepreneurial Skills	CLUSTER 5: Ethics and Professionalism
				Practical Skills	Interpersonal and Communication Skills	Digital and Numeracy Skills	Leadership, Autonomy and Responsibility		
	Develop skills to engage with local communities. Develop basic proficiency in one other language [e.g., English].		routine tasks or study.		besides National language. Take responsibility for and initiate steps to learn further.	numerical and graphical data.			Develop political and social awareness.
Level 3 **CERTIFICATE**	Learners will have the fundamental, theoretical and technical knowledge of facts and principles at an intermediate level. Demonstrate balanced operational skills as required. Show an interest in pursuing further studies in specific subjects or disciplines pertaining to their field of interest or work. Acquired elementary proficiency in one additional language [e.g., English]. Demonstrate age-appropriate local civic engagement and awareness of global issues.	Describe basic principles, theories and skills, within a significant range of knowledge in a subject and discipline to address well-defined, varied and routine tasks/work.	Apply knowledge, familiar solutions and skills to solve predictable problems of routine tasks and/or study.	Organise, operate and complete, using information appropriate methods, tools, technologies, materials to solve/ address routine and some non-routine tasks/problems within an area of work and/or study under supervision.	Communicate effectively and clearly orally or in writing, ideas, information, problems and solutions, individually or as a team to peers, experts and non-experts. Develop elementary proficiency in at least one other global language, besides the national language.	Use basic digital technology applications to support study/work to seek and process data related to a subject of study/work. Interpret and use familiar and uncomplicated numerical and graphical data.	Demonstrate capacities to work with considerable autonomy and minimal supervision. Provide guidance to others within context of work/study. Undertake considerable responsibility for quality and impact of outputs. Take responsibility for, and reflect on, performance of tasks/work/study.	Initiate self-improvement through study or seek further training with minimal guidance. Show awareness and general knowledge of Malaysia and its ASEAN partners in the region. Demonstrate basic entrepreneurial knowledge and skills.	Demonstrate ability to comply with work ethics in task(s) or learning especially in diverse multi-cultural contexts. Pursue active engagement with local civil societies on matters of interest to local and global communities [e.g., environmental issues].

MQF LEVEL	Summary of Learner Profile	CLUSTER 1: Knowledge and Understanding	CLUSTER 2: Cognitive Skills	CLUSTER 3: FUNCTIONAL WORK SKILLS				CLUSTER 4: Personal and Entrepreneurial Skills	CLUSTER 5: Ethics and Professionalism
				Practical Skills	Interpersonal and Communication Skills	Digital and Numeracy Skills	Leadership, Autonomy and Responsibility		
Level 4 **DIPLOMA**	Learners will have a broad knowledge of the general theories, principles and demonstrate skills in a focused area of study/discipline enabling them to undertake specialized work leading to a career path in technical, professional or management fields. Learners express interest in pursuing further education. Learners will have a commitment for appropriate ethical behavior and express an appreciation of national aspirations within global perspectives.	Demonstrate systematic comprehension (understanding) of a broad range of complex technical and theoretical knowledge and skills to undertake varied, complex, routine and non-routine tasks/ study within a field/discipline.	Identify, interpret, apply and evaluate general concepts, theory and/or operational principles within a well-defined context of a subject/discipline and/or work with minimal supervision. Solve problems of a common and well-defined kind as well as those others of a non-routine nature.	Apply a limited range of practical skills, essential tools, methods and procedures to perform required tasks/work. Reflect and make adjustments to practices and processes, as necessary, related to routine or non-routine tasks.	Communicate clearly, both orally and in writing, ideas, information, problems and solutions, to others including peers, experts and non-experts. Interact effectively, individually or as member of a team with supervisors, peers and subordinates. Demonstrate a high level of proficiency in at least one other language besides the national language.	Use a range of digital applications to support study/work as well as to seek and process data related to work or study. Demonstrate skills to use and interpret routine and complex numerical and graphical/visual data.	Perform work with significant degree of personal responsibility and autonomy under broad guidance and direction on well-defined and non-routine study/work activities performed in a variety of contexts. Lead and manage diverse teams to manage issues at work.	Identify self-improvement initiatives and possibilities for further education. Develop realistic career and professional goals. Demonstrate adaptability to changes in work environment. Explore and engage in activities/ projects with entrepreneurial mindset. Show interest in and participate at professional and civic activities leading to local and region wide communities building.	Demonstrate ability to understand and comply with, organizational and professional ethics in work environment. Demonstrate ability to apply sustainable practices in the context of local and global work and social environment.
Level 5 **ADVANCED DIPLOMA**	Learners have significant theoretical and technical knowledge. Can deal with complex situations at work and show an ability to understand and comply with, organizational and professional demands.	Describe a range of theoretical, conceptual and technical knowledge and comprehension within an advanced (specialized knowledge) field to address varied and unpredictable tasks/work /study.	Identify, interpret apply, analyze and evaluate detailed technical, conceptual and theoretical knowledge in a specialized subject/discipline or work. Solve problems/ issues in a broadly-	Using a range of practical skills apply essential methods and procedures to a broad range of complex tasks and/or of study. Review and make adjustments and supervise others on	Communicate and interact effectively and cogently in a comprehensive and well-structured manner to convey information, ideas, problems and solutions for social, academic and professional purposes to a range of audiences.	Use a range of information, media and technology applications to support study and/or work. Interpret and apply routine and non-routine, complex numerical and graphical/visual data.	Perform work with substantial degree of autonomy and often carrying significant levels of responsibilities. Make management decisions independently on resources allocation as well as performance related	Engage in self-directed lifelong learning effectively and participate independently in professional collaborations. Demonstrate adaptability to changes in work environment.	Demonstrate ability to exercise social responsibilities; comply with professional, ethical and sustainable practices. Contribute to the development of sustainable local and global communities.

MQF LEVEL	Summary of Learner Profile	CLUSTER 1: Knowledge and Understanding	CLUSTER 2: Cognitive Skills	CLUSTER 3: FUNCTIONAL WORK SKILLS				CLUSTER 4: Personal and Entrepreneurial Skills	CLUSTER 5: Ethics and Professionalism
				Practical Skills	Interpersonal and Communication Skills	Digital and Numeracy Skills	Leadership, Autonomy and Responsibility		
	Learners will have an ability to apply sustainable practices ethically and in the context of local and global work and social environment.		defined complex, routine and non-routine context or under even unpredictable circumstances with a limited range of approaches and independence.	related practices and processes.	Show a high level of oral and written proficiencies in at least two languages.		judgements of others in the workplace. Demonstrate capacities to take responsibility and accept accountability. Demonstrate team leadership in new environments including undefined areas of work.	Demonstrate entrepreneurial skills in relevant selected situations. Demonstrate competencies working or studying in multicultural, multilingual and multiethnic communities locally and globally.	
Level 6 **BACHELOR** **GRADUATE CERTIFICATE/ DIPLOMA**	Learners will demonstrate a thorough comprehension of broad based and coherent body of knowledge and skills for para and full professional work embedding research, innovation and creativity in specialized areas. Demonstrate professionalism, resilience commitment to an ethical work culture, sustainability issues and an awareness of global citizenship in alignment with national aspirations.	Describe advanced and comprehensive, theoretical and technical knowledge and demonstrate relevant skills in a specialized field, or of a multidisciplinary nature related to the field of study, work and/or practice.	Demonstrate intellectual independence in the application of knowledge within specific field(s) by applying critical, analytical and evaluation skills in the field of study/work/practice. Manage, resolve complex applications and handle unpredictable issues with creative and innovative solution(s). Apply skill/ knowledge to a range of approaches in the field of study/work/practice.	Apply a range of essential methods and procedures to solving a broad range of complex problems. Review, make adjustments and supervise related practices and processes concerning field of specialization.	Convey ideas both in written or oral forms using appropriate and different forms of presentation, confidently, accurately and coherently in appropriate context in a well-structured manner to a diversity of audiences. Work together with different people in diverse learning and working communities as well as other groups locally and internationally.	Use a broad range of information, media and technology applications to support study and/or work. Use and combine numerical and graphical/visual data for study/work.	Work autonomously, and show leadership and professionalism in managing responsibilities within broad organizational parameters. Demonstrates satisfactory level of autonomy (being the lowest level, conducts basic research, acceptable/ considerable autonomy). Undertake significant levels of work-related responsibilities of others as well as self.	Engage effectively in self-directed lifelong learning and professional pathways. Demonstrate flexibility and adaptability to changes in industry. Demonstrate entrepreneurial competency with selected project(s). Demonstrate an appreciation of broader socio-political economic and cultural issues at local/national and regional level.	Demonstrate adherence, and ability to identify ethical issues, make decision ethically, and act professionally within the varied social and professional environment and practice. Demonstrate a deep familiarity and knowledge of local and global issues relating to science, technology, business, social and environmental issues.

MQF LEVEL	Summary of Learner Profile	CLUSTER 1: Knowledge and Understanding	CLUSTER 2: Cognitive Skills	CLUSTER 3: FUNCTIONAL WORK SKILLS				CLUSTER 4: Personal and Entrepreneurial Skills	CLUSTER 5: Ethics and Professionalism
				Practical Skills	Interpersonal and Communication Skills	Digital and Numeracy Skills	Leadership, Autonomy and Responsibility		
							Demonstrate decision making capacities and professionalism by working towards pre-determined goals and outcomes Demonstrate accountabilities, especially in professional fields.		
Level 7 **MASTERS** **POSTGRADUATE CERTIFICATE/ DIPLOMA**	Learners at this level will demonstrate a mastery of knowledge in specific field/fields of study/work and through further learning, research, and/or professional practice; and Buttressed by a comprehension of strong theoretical knowledge, critical thinking, creative and innovative skills. They will also be able to generate new solutions to problems. They operate with confidence, knowledge and skills both in Malaysia/ASEAN as well as the wider world.	Demonstrate innovation and independence in undertaking analytical and critical evaluation, and synthesis of complex information, specialized concepts, theories, methods and practice in a field(s) of study/practice as a basis for research.	Apply knowledge critically and integratively to manage and resolve complex problems/issues in a field(s) of study/practice through research, using advance techniques, tools, skills or by a range of approaches or (integrative) combination of approaches for decision making and producing new ideas, and/or innovative solutions or practice. Exemplify capacity to solve and manage complex problems or	Conduct standard and specialized research methods/ approaches and/or apply practical skills, tools or investigative techniques which are informed by knowledge at its forefront and the latest development in the subject/discipline.	Communicate clearly the knowledge, skills, ideas, critique and conclusion/rationale using appropriate methods to peers, experts, and non-experts in at least one international language. Work together and collaboratively with different people in learning and working communities and other groups and networks, ethically and professionally. Demonstrate competencies to work and undertake advanced study in at least one foreign language.	Competently use a wide range of suitable digital technologies and appropriate software to enhance study, research and/or work/practice. Adapt applications and systems to address defined and new situations/problems. Show skills to design, plan evaluation activities, using quantitative/ statistical tools. Establish the mechanism mathematical and other quantitative, qualitative tools to	Build engagement within professional environment with substantial autonomy, independence, and leadership. Show substantial responsibility in planning, resource management, supervision and problem solving and managing work within own team and collaboratively with other teams especially in the context of complex application and unpredictable situations. Demonstrates high level of autonomy (can conduct research independently but	Exemplify self-advancement through continuous academic and/or professional development. Demonstrate flexibility and adaptability to new changes in industry. Initiate and/or lead innovative entrepreneurial ventures/ projects.	Demonstrate adherence to legal, ethical and professional codes of practice. Demonstrate confidence to give advice and make decision(s) on complex issues based on critical reflections and ethical considerations. Contribute professionally to social, technological and economic development both nationally and internationally. Demonstrate ability to engage meaningfully on a range of civic and global issues in one's

MQF LEVEL	Summary of Learner Profile	CLUSTER 1: Knowledge and Understanding	CLUSTER 2: Cognitive Skills	CLUSTER 3: FUNCTIONAL WORK SKILLS				CLUSTER 4: Personal and Entrepreneurial Skills	CLUSTER 5: Ethics and Professionalism
				Practical Skills	Interpersonal and Communication Skills	Digital and Numeracy Skills	Leadership, Autonomy and Responsibility		
			issues in a field(s) of study/practice.			analyse and evaluate numerical and graphical data for study/work.	minimal guidance, substantial autonomy).		own area of expertise.
Level 8 **DOCTORAL**	Learners will demonstrate critical understanding of the most advanced knowledge at the frontiers of a field of study or professional practice. Independently conduct, manage, and lead advanced research which contributes to substantial, new and original knowledge, and/or professional practice. Produce research outputs in the form of a thesis, patents, products, new advanced professional practice or advanced technologies, creative models or works of art, or music.	Demonstrate originality and independence in undertaking critical, comprehensive, systematic evaluation of integrated, new, complex and abstract idea of current critical issues in the most advanced frontiers of knowledge of a field of study, discipline or practice.	Critically analyze, evaluate and synthesize new, complex and abstract ideas and current critical issues in the most advanced frontiers of knowledge of a field of study/discipline/practice and refine existing concepts and practices. Solve complex, abstract and emerging contemporary issues and challenges by independently applying advanced research methods, analytical tools and skills to creatively generate new knowledge, theories, novel solutions and/or new practices within the field(s) of	Demonstrate mastery of practical, technical skills/practices and scientific skills which is at the forefront of one or more areas of specialization and to develop new complex skills or techniques and solutions to resolve new highly complex and emerging problems. Portray ability to design and implement or adapt highly advanced, specialized research methodologies which is at the forefront of one or more area of specialization.	Communicate effectively research findings to peers, scholarly communities and society at large in the relevant field of expertise. Work to deal with different people in learning and working communities and other groups and networks, ethically and professionally. Convey information, insights, ideas, problems and present solutions cogently/coherently to peers, scholarly community and society at large in the field of expertise. Build network in an advanced/sophisticated leadership skills and abilities to bring effective	Use/select/improve existing or develop new appropriate tools/methodologies to support and enhance research activities. Undertake critical evaluation of numerical and graphical data.	Work with significant autonomy, independence, and authority in the conduct and management of research and resources, which contribute, to new knowledge, advanced practices, processes and products. Demonstrates full autonomy (highest level, minimal or almost no guidance, critical analysis of problems and solutions). Demonstrate leadership, professionalism and management skills, and take full responsibility for own work, and significantly for others in the	Integrate knowledge for lifelong learning with development of new ideas, solutions and systems. Take full responsibility for own work and where relevant be accountable for overall management of one's research organization. Possess flexibility and adaptability to new environment and changes in technology and industry. Initiate and lead entrepreneurial ventures and projects.	Demonstrate adherence to legal, professional and ethically sound codes of practice. Identify emerging ethical and professional issues, its complexities, and implications to advancement of research in the field and its societal impact. Continue to contribute professionally to social, technological and economic development.

MQF LEVEL	Summary of Learner Profile	CLUSTER 1: Knowledge and Understanding	CLUSTER 2: Cognitive Skills	CLUSTER 3: FUNCTIONAL WORK SKILLS				CLUSTER 4: Personal and Entrepreneurial Skills	CLUSTER 5: Ethics and Professionalism
				Practical Skills	Interpersonal and Communication Skills	Digital and Numeracy Skills	Leadership, Autonomy and Responsibility		
	Demonstrate capacities to present and defend points of view, thesis and ideas in area(s) of expertise with knowledge and confidence.		study/discipline/practice. Make substantial contribution through the creation of new knowledge/theories/ solutions/practice through originality and independent research, which satisfies peer reviews and international standards.		collaboration with a diversity of partners. Or Encompass leadership qualities in social responsibilities.		research team/organization/ projects/work. Contribute to the technological, social and cultural progress on academic and professional practice to the society at large on emerging issues at professional/expert/ specialist level.		

NOTE: This table provides descriptors for qualifications level. The level descriptors must be interpreted rather than being directly transpose to any learning taxonomy.

APPENDIX 3

Malaysian Qualifications Framework (MQF) Second Edition and Lifelong Learning

MQF Level	Minimum Graduating Credits*	Academic Sector	TVET Sector	Lifelong Learning/APEL Criteria for APEL(A)
8	No credit rating 80	PhD by Research Doctoral Degree by Mixed Mode & Coursework		Admission criteria: 35 years old Bachelor's degree in relevant field/equivalent 5 years of work experience Passed APEL assessment
7	No credit rating 40	Master's by Research Master's by Mixed Mode & Coursework		Admission criteria: 30 years old STPM/Diploma/equivalent Relevant work experience Passed APEL assessment
	30 20	Postgraduate Diploma Postgraduate Certificate		
6	120	Bachelor's Degree		Admission criteria: 21 years old Relevant work experience Passed APEL assessment
	64 34	Graduate Diploma Graduate Certificate	6	
5	40	Advanced Diploma	5	
4	90	Diploma	4	Admission criteria: 20 years old Relevant work experience Passed APEL assessment
3	60	Certificate	3	Admission criteria: 19 years old Relevant work experience Passed APEL assessment
2	30	Certificate	2	3R
1	15	Certificate	1	3R

* Inclusive of general studies subjects for an undergraduate programme.

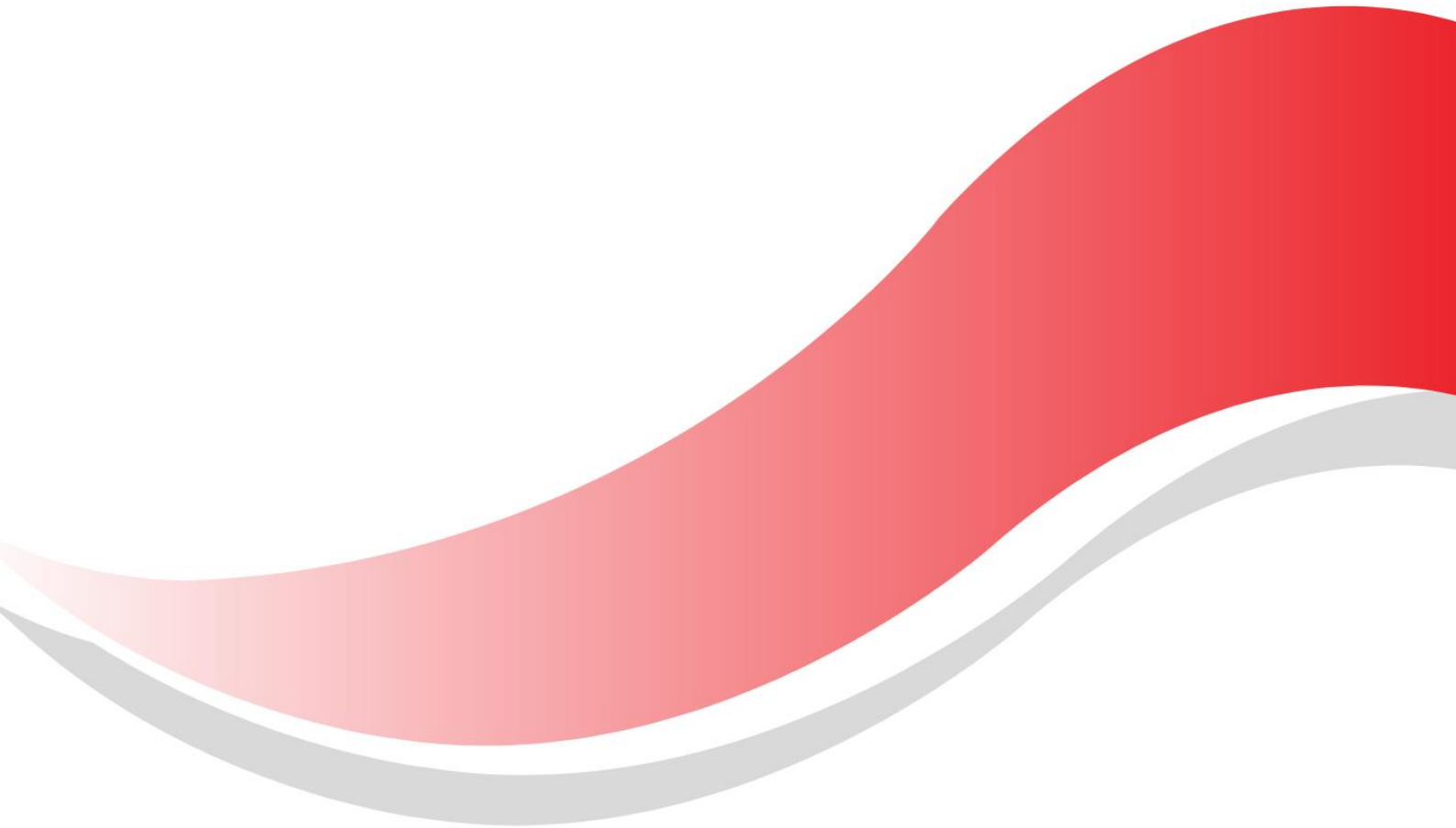
GLOSSARY

1.	Academic Load	A quantitative measurement for all learning activities required to achieve the learning outcomes.
2.	Accreditation	A recognition granted by MQA after examining and assessing: (a) a higher education programme or qualification; or (b) a Higher Education Provider under Chapter 4 or 7 of Part VIII (MQA Act, 2007).
3.	Accreditation of Prior Experiential Learning (APEL)	A systematic process that involves the identification, documentation and assessment of prior experiential learning, i.e., knowledge, skills and attitudes, to determine the extent to which an individual has achieved the desired learning outcomes, for gaining access to a programme of study.
4.	Credit	A quantitative measurement that represents the learning volume of the academic load to achieve the respective learning outcomes.
5.	Education for Sustainable Development (ESD)	"ESD embodies the acquisition of knowledge, skills, values and empowerment for learners of all ages to address interconnected global challenges, such as climate change, biodiversity loss, resource depletion and social inequality. It also requires participatory teaching methods that inspire and enable learners to transform their behaviour and actively engage in actions promoting sustainable development. This educational approach fosters essential competencies, including critical thinking, envisioning future scenarios and collaborative decision-making." (UNESCO, 2017)
6.	Equivalency/Alignment	The extent to which a certification or qualification (learning outcomes) or a qualification or

		certification level (descriptors) of a framework demonstrates/shows substantial similarity with a reference framework.
7.	Flexible Learning	A learning process that is free from constraints of either time, place, pace, learning style, content, assessment or learning pathway.
8.	Flexible Learning Pathways (FLPs)*	FLPs refer to learning pathways that lead to a qualification. It comprises three phases: 1. Pathways for getting into higher education; 2. Pathways for getting through higher education; i.e., progression or transferability; and 3. Pathways for getting out of higher education.
9.	Higher Education Provider (HEP)	A body corporate, organisation or entity that conducts higher education or training programmes, including skills training programmes, leading to the award of a higher qualification or a higher education qualification. This includes public or private HEPs, examination or certification bodies, or their representatives.
10.	Learning Outcome	Statements on what students should know, understand and can do upon completion of a period of study.
11.	"Partial Qualification"	"Partial qualification" refers to a small volume of learning through shorter, personalised, demand-driven and possibly stackable courses, including micro-credentials, MOOCs and short modules with clear learning outcomes (knowledge, know-how, information, values, skills and competencies) to be acquired by the learner. It is certified/validated by a competent/authoritative body. Accumulation of

* [Ref: Sustainable Development Goal -4: FLPs in Higher Education from Policy to Practice. UNESCO: International Institute for Educational Planning 2022.]

		"partial qualifications" may lead to a full qualification.
12.	Profile	A specific subject or a field of study for a qualification, or features that differentiate a combination of qualifications across various disciplines, which have a similar emphasis or level.
13.	Qualification	A certificate, diploma or degree awarded by an HEP or any party authorised to confer or award the qualification and affirm the learned learning outcomes.
14.	Qualification Descriptor	A generic statement that explains the main learning outcomes for a qualification at a particular level.
15.	Qualifications Level	An award level described with generic outcomes or a qualification descriptor that characterises a typical qualification.
16.	Stackable	The accumulation of micro-credentials and credits can be tendered to HEPs for completion, leading to an award or credit transfer based on a credible and transparent outcomes-based process which is subject to existing policies. This route can open yet another pathway for working adults to seek knowledge and skills, ultimately leading to a qualification.
17.	Values-Based Education (VBE)	VBE focuses on strengthening moral and ethical values alongside academic rigour. VBE aims to nurture character, personality, attitude and behaviour based on humanistic, societal and communal values.



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