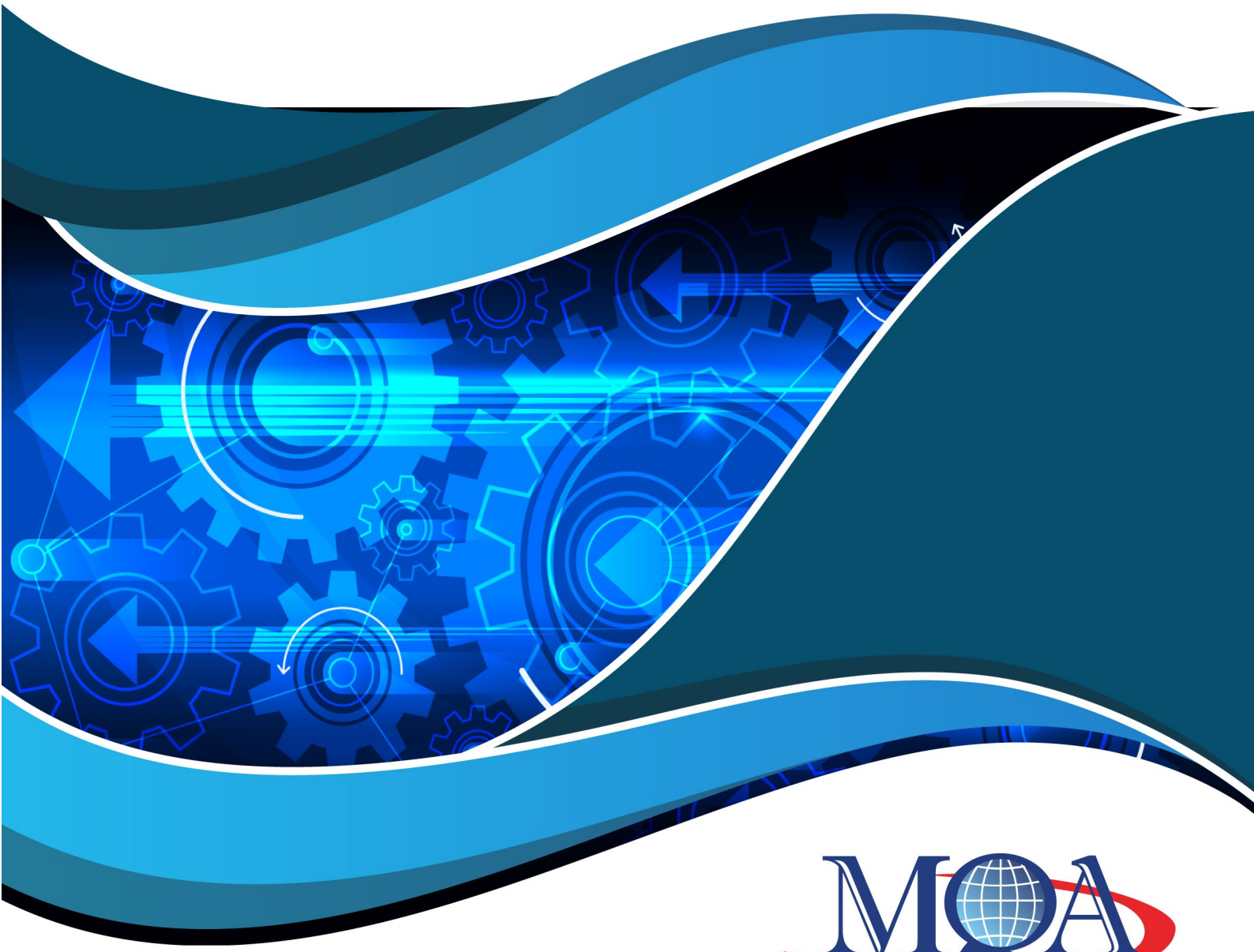
GUIDELINES:

GRADUATE CERTIFICATE IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET)

TEACHING COMPETENCY



Agensi Kelayakan Malaysia
Malaysian Qualifications Agency

Guidelines: Graduate Certificate in Technical and Vocational Education and Training (TVET) Teaching Competency
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FOREWORD

Technical and vocational education and training (TVET) has a key role to play in meeting the challenges that modern societies are facing all over the world, where it is seen as essential for socio-economic growth and welfare. The demands and expectations for TVET are therefore increasing. Awareness is growing for the need to adapt TVET to meet the rapidly changing requirements of the economy at the national, regional and global levels. However, TVET should not only respond to urgent and immediate needs for skills and prepare people for work, but it should also be a preparation for life and a contribution to human development. This is one of the main focuses of the Higher Education Plan 2015-2025 PPPM (PT). To meet this demand and prepare the Malaysian society and economy for the future, setting up a common understanding of the requirements for vocational education and trainers is of utmost importance.

For TVET, the same applies for general or academic education: TVET educators are the backbone of education and training systems, and it is important to have a core focus on both the quality and quantity of TVET educators. Therefore, it is crucial to improve the relevance of TVET educators' training to the demands of the regional labour market as well as the overall quality of vocational education. The availability of highly competent TVET personnel is key in this regard. Malaysia aims that by the year 2030, all teachers must possess at least an Advanced Diploma or Bachelor's Degree before joining the TVET teaching profession to ensure all TVET educators pass the 'quality criteria' and minimum standard of competencies before leaving the training institute. Lack of effective coordination and sharing of resources and articulation within the system reflects the inefficiency within. Furthermore, there is no single overseeing body to provide an overview of the TVET educators' landscape, in addition to a lack of qualification standards and a demand-supply mismatch. MQA is responsible for ensuring the preparation of appropriate guidelines to ensure that this programme can be implemented effectively.

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October 2021

ABBREVIATIONS

APEL	Accreditation of Prior Experiential Learning
COPIA	Code of Practice for Institutional Audit
COPPA	Code of Practice for Programme Accreditation
COPPA-ODL	Code of Practice for Open Distance Learning
COPTPA	Code of Practice for TVET Programme Accreditation
CPD	Continuous Professional Development
GGP	Guidelines to Good Practices
HEP	Higher Education Provider
MOOC	Massive Open Online Course
MQA	Malaysian Qualifications Agency
MQF	Malaysian Qualifications Framework
NEC	National Education Code
NOSS	National Occupational Skills Standard
ODL	Open and Distance Learning
PLO	Programme Learning Outcomes
PEO	Programme Educational Objectives
T&L	Teaching and Learning
TVET	Technical and Vocational Education and Training
WBL	Work-Based Learning

1. INTRODUCTION

1.1 Implementation of the new landscape in Malaysian TVET

The Single Quality Assurance System for Technical and Vocational Education and Training (TVET) is an initiative established under the 11th Malaysia Plan to strengthen the quality of TVET graduates, enhance the quality of TVET and subsequently, mainstream TVET pathways comparable to academic pathways, in order to meet the employment demands of industries in Malaysia.

The Malaysian Qualifications Agency (MQA), the Ministry of Higher Education (MoHE), the Department of Skills Development (DSD), and the Ministry of Human Resources (MoHR) are working together to operate this system in an integrated manner. This initiative aims to strengthen the accreditation system of TVET programmes to be more comprehensive and effective.

In approving the implementation of the single QA TVET, the Cabinet has agreed to the use of the Code of Practice for TVET Programme Accreditation (COPTPA) as the basis for evaluation and accreditation of various TVET programs implemented by MQA and DSD. To ensure the quality of the TVET programs, COPTPA has set the requirement that every TVET teaching staff must have TVET teaching competency. This stipulation has been specified in the COPTPA, standard 4.1.5, as follows: “Teaching staff/industry experts must have TVET teaching competency verified by an authority and recognised by MQA or DSD”. The issuance of this Guideline is to complement the existing TVET teaching competency certification, and to be implemented by Higher Education Providers accredited by MQA.

1.2 Technical & Vocational Education and Training (TVET)

In 2015, UNESCO redefined TVET to comprise education, training and skills development relating to a wide range of occupational fields, production, services, and livelihood. As part of lifelong learning, TVET can take place at secondary, post-secondary, and tertiary levels, and includes work-based learning, continuous training, and professional development which may lead to qualifications. TVET also includes a wide range of skill development opportunities attuned to national and local contexts. Learning to learn, the development of literacy and numeracy skills, transversal skills, and citizen skills are integral components of TVET. The key attributes of TVET can thus be summarised as inclusive of education and training processes, comprehensive shaping of talent, and crossing all occupational fields.

COPTPA, 2020 defined TVET as an education and training process that has an occupational direction, with a major emphasis on industry practices. It aims to produce a competent workforce in related fields for the achievement of the nation's socioeconomic objectives. Based on this definition, the scope of TVET should, among others, be based on recognised occupational/ industry standards, and contain 50% - 70% practical components subject to the programme level and emphasise psychomotor and work skills.

1.3 Technical & Vocational Education and Training (TVET) Educator

"An inclusive term of TVET Educator referring to teachers at schools; lecturers at colleges, traditional universities, comprehensive universities, and universities of technology; trainers in workplaces; facilitators, assessors, moderators, and people teaching, educating, training, facilitating or assessing learners across the board." (UNESCO UNEVOC, 2013).

"A TVET Educator is a person whose function is to impart knowledge or know-how to students or trainees in a TVET institution. The term educator could be used for teacher, trainer, and lecturer. Malaysian TVET Educator refers to teaching personnel in several ministries and agencies providing TVET programmes such as 1) the Ministry of Higher Education, 2) the Ministry of Education, 3) the Ministry of Human Resources, 4) the Ministry of Youth and Sports, 5) the Ministry of Women, Family and Community Development, 6) the Ministry of Defence, 7) the Ministry of Agriculture, 8) the Ministry of Tourism and Culture, 9) State governments and 10) private institutions." (Malaysia TVET Educator Standard, 2020).

With the rise and changes in technology, new techniques of teaching and learning (T&L) should be taught to the educators parallel with technological advancement (*Murati & Ceka*, *2017*). In Malaysia, there are many TVET institutions that produce a highly skilled workforce. However, to provide excellent and effective TVET, the educators' competency is one of the essential factors, especially their performance in their respective fields. This is because a highly-skilled workforce is crucial to support the transformation of the entire economic sector in the country (*Rasul et al., 2015*).

This change is to ensure that the educators of our future generation are well-educated and well-trained to face the challenges of globalisation. These competencies are also crucial to producing competent TVET graduates who are capable of meeting the requirements of industries and professional bodies (Ismail, et al., 2018). Thus, Malaysian educators can stand tall and be committed to supporting the education system that can fulfill the needs and aspirations of the nation.

TVET educators must have a wide range of methodologies at hand and master them all to ensure they achieve their teaching and learning goals. These methodologies will empower TVET educators to:

- provide the necessary knowledge on workplace requirements in TVET institutes and industry environments;
- analyse workplace and competency requirements in their respective fields and specialisation;
- conduct and share research innovation and commercialisation of TVET curriculum as well as benchmark competency requirements of national TVET work processes with global qualification frameworks.

Teaching professionals are judged based on their performance, skills, and knowledge because educators' performance will affect students' learning outcomes, especially in developing and strengthening students' abilities. To be an educator in the TVET system is slightly different from other education systems, as technical and professional training is more about hands-on activities and practice. Hence, the T&L skills or competency of TVET educators often becomes a significant concern.

1.4 TVET Teaching Competency Standards

Various teaching competency standards have been developed at both national and regional levels. Teaching competency standards were developed by the Department of Skills Development (DSD), the Ministry of Human Resources, and the Ministry of Higher Education (MoHE), which are the two most important ministries governing TVET, as a basis for training and certifying TVET educators. Teaching competency standards were introduced at regional levels by ASEAN through collaboration with RICOTVET, which produced the Regional TVET Teacher Standard for ASEAN (July, 2017). In developing this guideline, the panel has referenced, mapped and adapted these documents in drafting and completing the Graduate Certificate in TVET Teaching Competency.

1.4.1 Malaysia TVET Educator Standard (Ministry of Higher Education)

The Malaysia TVET Educator Standard was endorsed by the Mesyuarat Kajian Semula Dasar Jaminan Kualiti (MKSDJK) KPM and MQA No. 2/2018. The document was produced by JPT, MoHE as an initiative to support Shift 4 of the Malaysia Education Blueprint 2015-2025 (Higher Education), which aspires among other things, to produce quality TVET Educators who will in turn produce quality TVET graduates. Three important components of TVET educators' competencies are

Personal Traits and Professionalism, Teaching, Learning and Training, and Technical and Innovation to enhance the quality of TVET educators, with focus on occupational competency and emphasis on TVET educator enrichment. It will complement any prevailing guidelines and standards.

1.4.2 Teaching Competency Standards by the Department of Skills Development (DSD)

The panel also referred to TVET Implementation and Development Level 5 (P853 - 001- 5:2017) in the development of this guideline. The document was developed in 2017 in response to the National TVET Agenda, Economic Transformation Programme and Malaysia Education Blueprint 2015-2025 (Higher Education) strategies and initiatives. This NOSS is intended to be used as a standard for training TVET lecturers/instructors who can play the role of change agents in transforming the education system into one that produces thinking and innovative students to meet the needs of the new high-income economy. The standard also addresses the strategy for enhancing industry-led curriculum development and delivery. In addition, DSD also recognizes teaching competency programmes by other agencies. Kindly refer to the official portal of Department Skills Development for the list of recognized programmes offered by other agencies.

1.4.3 Regional TVET Teacher Standard (RTTS) for ASEAN

RTTS is an initiative by GIZ RECOTVET, the ASEAN Secretariat, and SEAMEO VOCTECH, which is jointly developed by the ASEAN Member States. The document was published in July 2017 for the first version and December 2019 for the second version. It provides guidelines for the essential competencies, skills, knowledge, and abilities that a successful TVET teacher should possess. The standard can act as a reference and benchmarking document. It contributes to a common understanding of what constitutes an adequately qualified TVET teacher. Standards are common tools to define and ensure the quality of TVET personnel qualification. The standard aims to define the core competencies for TVET teachers in Southeast Asia that comprehensively prepare their students for the transition to employment.

1.5 Graduate Certificate in TVET Teaching Competency Guidelines

The main objective of the Graduate Certificate in TVET Teaching Competency Guidelines is to lay the foundation for the development and certification of TVET Educators through pre-service and in-service professional development in both public and private TVET Institutions accredited by MQA. This guideline is to maintain and enhance the teaching and learning quality of TVET educators to be at par with global TVET educator standards. A qualification in teaching competency at the graduate certificate level will ensure the provision of technical knowledge and skills mastery in TVET parallel with national education needs and industry-standard practice, inspire lifelong learning and encourage innovation, and creativity in career development.

The certification via this graduate certificate programme can be awarded by both public and private HEPs that satisfy the MQA programme accreditation criteria. It qualifies as the certification of teaching competency requirement stated in COPTPA for MQA accredited programmes. TVET educators teaching in DSD accredited institutes will have to comply with the teaching competency requirements stipulated by the Department of Skills Development.

This guideline will facilitate a common understanding of the best practices and competency levels for educators in TVET institutions comprising appropriate components of Knowledge (K), Skills (S) Attitude (A), and Professionalism (P). The guideline defines the core competencies for TVET educators that comprehensively prepare students for their transition to employment. Thus, when applied effectively, this guideline will ensure that Malaysian TVET educators are equipped with adequate competencies to facilitate their students' smooth transition from the institution to the world of work.

Since this guideline was developed with reference to the Regional TVET Teacher Standard for ASEAN, this will open up the possibility for larger recognition of graduate certificate holders at regional levels**.**

1.6 Purpose and Objective

The purpose of this Guideline is to provide higher education providers (HEPs) and relevant stakeholders with essential information pertaining to the principles, processes, and procedures in the implementation of graduate certificate in TVET teaching competency. The Guideline also provides the minimum levels of acceptable practices in designing and offering a graduate certificate programme in TVET teaching competency.

The main objective of this Guideline is to provide a foundation for the development of *"occupational competence*" for the TVET Educators. The promoted skills should be closely related to common industrial practice so that the TVET educators meet the demands of T&L at both institutions and industries. Although the Guideline specifies the minimum requirements of the programme, HEPs and relevant stakeholders are encouraged to go beyond the minimum base line where they should be innovative in terms of customising, organising, delivering, and assessing their programmes and specific subject matter to meet the current and future needs of the industry, society, and country. Hence, HEPs and relevant stakeholders must take cognisance of the rapidly evolving subject matter and introduce effective and sustainable programme improvements.

2. PROGRAMME DEVELOPMENT AND DELIVERY

2.1 PROGRAMME EDUCATIONAL OBJECTIVES

The programme educational objectives (PEOs) are broad statements that describe the career and professional accomplishments that the programme is preparing the graduates to achieve after they graduate.

“A clear and appropriate statement of objectives forms an important element in programme design and quality assurance, and it focuses on student learning experiences. An appropriate formulation of objectives enables a clear understanding of what the programme intends to achieve.” (COPTPA 2nd Edition, 2020)

A more detailed description of the PEO is provided under each level of study from certificate to doctoral level. It should be noted that the PEOs provided describe the minimum requirement, and the HEPs may provide additional objectives where appropriate.

The PEO of this programme is outlined below.

Table 1: PEO for Graduate Certificates Level

PROGRAMME EDUCATIONAL OBJECTIVES	
PEO 1	To produce competent TVET educators who have broad technical knowledge and skills in TVET and are capable of using appropriate numerical techniques and digital technologies in parallel with national education needs and industry standard practice.
PEO 2	To produce TVET educators who lead with accountability, communicate and interact with internal and external stakeholders when working in various educational and industry settings.
PEO 3	To produce TVET educators who uphold professional and ethical practices in educational and industry settings.
PEO 4	To produce TVET educators with positive attitude, entrepreneurial mind set and sustainable practices that foster innovation and creativity in enhancing their career.

2.2 LEARNING OUTCOMES

Learning outcomes are detailed statements describing in explicit terms the achievement of learners. Assessment of the learners is to be done upon completion of a period of study.

The quality of a programme is ultimately assessed by the ability of the learners to carry out their expected roles and responsibilities in society. This requires the programme to have a clear statement of the learning outcomes to be achieved by the learner." (COPTPA 2nd Edition, 2020).

The learning outcomes should **cumulatively reflect the five clusters [1] of learning outcomes** meant to develop well-balanced individuals with a holistic set of competencies.

The five clusters of learning outcomes are:

i. Knowledge and Understanding;
ii. Cognitive Skills;
iii. Functional Work Skills with a focus 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

Table 2.1 shows the mappings of learning outcomes for the fields of Graduate Certificates in TVET educators against five MQF clusters of learning outcomes. **The flexibility in describing the learning outcomes remains with the Higher Education Providers (HEPs) as long as they are sufficiently covered.**

[1] Malaysian Qualifications Agency. (2017). Malaysian Qualifications Framework 2nd Edition. Petaling Jaya, Malaysia.

Table 2.1 Learning Outcomes (LO) Based on MQF LO

The **specific learning outcomes** identified in this document are as listed below:

LO	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
	1	2	3	4	5	6	7	8	9	10	11
i. Apply the knowledge and skills in science, mathematics and vocational education regarding to the National Education Philosophy and Industry practice;	✓						✓				
ii. Demonstrate with confidence the skills taught in the field of (option), through various approaches, methods, strategies and techniques;			✓								
iii. To assume responsibility when communicating through speech, writing including the use of ICT;					✓	✓					
iv. To appraise and apply the scientific method and problem-solving skills in Industry management and vocational education;		✓									
v. Assume responsibility in leading and collaborating with peers and stakeholders;				✓				✓			
vi. Show initiative to undertake lifelong learning in vocational education;									✓		
vii. Seek entrepreneurial opportunities in vocational education;										✓	
viii. Show commitment for professional ethics of an educator in social, cultural and environmental; and											✓
ix. To analyze and plan the educational needs using the knowledge and skills in vocational education management process.		✓	✓								

2.3 CURRICULUM DESIGN AND DELIVERY[2]

For the purpose of the Programme Standards, the Code of Practice for Programme Accreditation (COPPA) and Code of Practice for TVET Programme Accreditation (COPTPA), and in particular, the section on Area 1: Programme Development and Delivery are referred.

The term “programme development and delivery” is used interchangeably with the term ‘curriculum design and delivery’.

This section outlines minimum credits of each curriculum component for all levels of qualifications as stated in **Table 2.2**. Specific requirements as to the body of knowledge of the various core areas are in **Appendix 3**. **Higher Education Providers (HEPs) have the flexibility to design their own programme. However, HEPs should cover the body of knowledge (BoK) indicated in this document. HEPs should put emphasis on ‘competency’ development, referring to the ability of the graduates to successfully complete teaching tasks in Technical and Vocational Education and Training (TVET) using relevant knowledge, skills, and attitudes in real scenario. This requires HEPs to make constructive alignment between the learning outcomes, delivery, and assessment.**

In addition, HEPs are encouraged to develop their programmes to reflect the current best practices and to offer a high-quality academic programme. Teaching competency programmes may vary in its nomenclature; however, the programme nomenclature must reflect the content of the programme as mentioned in the Guidelines on Nomenclature of Malaysian Higher Education Programme (2018). Examples for each level are provided in **Appendix 4**.

HEPs can implement the components of this programme through micro-credentials and students who meet the requirements based on the Guidelines to Good Practices: Micro-credentials may be awarded for the qualification.

Credit transfer may be accorded to candidates who have attended a study programme/ qualification level/ module and attained the specified level of competency. It is based on the

[2] Standards in this area are best read together with Guidelines to Good Practices: Curriculum Design and Delivery, which is available on the MQA Portal: www.mqa.gov.my.

achievement of learning outcomes equivalent to the subject/course/module of the programme applied and subject to the current credit transfer articulation.

The following are the minimum credits outlined for this programme. These requirements are based on the minimum graduating credits and the requirement is still applicable even if the HEPs offer total credits above the minimum graduating credits.

Table 2.2: Minimum credits of each curriculum component

GRADUATE CERTIFICATE (LEVEL 6, MQF)

COMPONENT		MINIMUM CREDIT
Compulsory Courses (General* and HEPs courses)		4
Core (50% of which must be practical oriented including Final project)	Common Core**	8
	Discipline Core***	13
	Project ****	3
	Teaching Practice*****	6
GRADUATING CREDITS		**34**

Notes:

*	Please refer to the *Garis Panduan Mata Pelajaran Pengajian Umum (MPU) Edisi Kedua* for the minimum credit requirement as stipulated by Ministry of Higher Education (MoHE).
**	Common core refers to courses that address the fundamentals of teaching and learning.
***	Discipline core refers to teaching and learning principal and method dedicated for TVET.
****	Project is necessary to encourage innovation in T&L.
*****	Teaching practice must be in institutes of higher learning (IHL) or training centre at industries, according to the formula of 1 credit = 2 weeks of training. It can be offered flexibly according to the package approved by the programme leader.

Recommended Delivery Methods:

- Blended learning/MOOC
- Field/industry visits
- Lectures/tutorials
- Practical classes/laboratory work
- Project/industrial training
- WBL

2.4 Accreditation of Prior Experiential Learning for Credit Transfer (APEL.C)

Accreditation of Prior Experiential Learning for Credit Transfer is acceptable (case to case basis) for prior experience in teaching/research/supervision in TVET.

3. ASSESSMENT OF STUDENT LEARNING[3]

"Student assessment is a crucial aspect of quality assurance because it drives student learning. It is one of the most important measures to show the achievement of learning outcomes. The result of the assessment forms the basis in awarding qualifications. Hence, methods of student assessment have to be valid, clear, consistent, effective, reliable and in line with current practices and must clearly support the achievement of learning outcomes." (COPTPA 2nd Edition, 2020)

It is encouraged that commonly practiced methods of assessment be adopted depending on specific requirements and nature of each course. In general, however the following guidelines must be considered:

i. Assessments should comprise formative and summative assessments;
ii. Assessments must be appropriate to the learning outcomes;
iii. Candidates are required to successfully fulfil passing conditions for BOTH continuous and final assessments for every course. HEPs can define the meaning of a pass which should imply that the satisfaction of examiner that the candidate has satisfactorily achieved the intended learning outcomes of the particular course;
iv. For continuous assessment, HEP must have clear assessment rubrics to indicate achievement of course learning outcomes; and
v. Assessment should be related to teaching competency according to industry practice.

The percentages of continuous and final assessments for graduate certificate level of study are presented in **Table 3**. The suggested forms of assessment indicated below are **merely examples**. HEPs are encouraged to use a variety of methods and tools appropriate for measuring learning outcomes and competencies.

[3] Standards in this area are best read together with Guidelines to Good Practices: Assessment of Students, which is available on the MQA portal: www.mqa.gov.my.

RECOMMENDED ASSESSMENT METHODS

CONTINUOUS ASSESSMENT (%)	FINAL ASSESSMENT (%)	FOCUS OF ASSESSMENT (%)		SUGGESTED ASSESSMENT METHODS	SUGGESTED/ APPROPRIATE ASSESSORS
		THEORY	PRACTICAL		
50 –100	0 – 50	30 - 50	50 - 70	• Observation • Demonstration • Presentation • Practical assessment Written test • Portfolio/logbook Laboratory report • Interview/Oral test • Project	• TVET Providers • Industry • Professional bodies • External verifiers appointed by programme owners/ accreditation bodies

4. STUDENT SELECTION

4.1 Candidate Criteria and Requirement

"In general, admission to a programme needs to comply with the prevailing policies of the Ministry of Higher Education (MoHE). There are varying views on the best method of student selection. Whatever the method used, the HEP must be able to defend the consistency of the method it utilises. The number of students to be admitted to a programme is determined by the capacity of the HEP and the number of qualified applicants. HEP admission and retention policies must not be compromised for the sole purpose of maintaining a desired enrolment. If an HEP operates geographically separated campuses or if the programme is a collaborative one, the selection and assignment of all students must be consistent with the national policies" (COPPA 2nd Edition, 2017).

The standards for the recruitment of students into the Graduate Certificate Technical and Vocational Teaching Competency programmes are formulated keeping in mind the generic National Higher Education policies pertaining to the minimum student entry requirement. HEP must take cognisance of any specific policies that may apply to their individual institution.

The target students for this programme include in-service TVET instructors/ educators, graduates with industry experience and industry practitioners intending to take up teaching assignments in TVET related programmes.

The minimum entry requirements for this programme are as in **Table 4.**

Table 4: Minimum Requirement for Graduate Certificates Admission

	ENTRY REQUIREMENT
i.	A Diploma (Level 4, MQF) in the relevant fields with a minimum CGPA of 2.50 and ONE (1) year of related industrial experience; OR
ii.	A Diploma (Level 4, MQF) in TVET with a minimum CGPA of 2.50; OR
iii.	An Advanced Diploma (Level 5, MQF) in the relevant fields with at a minimum CGPA of 2.00 and ONE (1) year of related industrial experience; OR
iv.	An Advanced Diploma (Level 5, MQF) in TVET with at a minimum CGPA of 2.00; OR

ENTRY REQUIREMENT	
v.	A *Diploma Kemahiran Malaysia* (DKM) / *Diploma Vokasional Malaysia* (DVM) subjected to HEP Senate / Academic Board's approval*; OR
vi.	A *Diploma Lanjutan Kemahiran Malaysia* (DLKM) subjected to HEP Senate / Academic Board's approval*; OR
vii.	A Bachelor's Degree (Level 6, MQF) in relevant fields with a minimum CGPA of 2.00 and ONE (1) year of related industrial experience; OR
viii.	A Bachelor's Degree (Level 6, MQF) in TVET with a minimum CGPA of 2.00; OR
ix.	Any Post Graduate Degrees; OR
x.	Other relevant equivalent qualifications recognised by the Malaysian Government.
*For Public Universities: Refer to *Surat JPT.S(BPKP)2000/400/04/01 Jld.5(53), 20th November, 2019 - Pindaan syarat kelayakan minimum (Syarat am) Diploma TVET (DKM, DLKM, DVM) sebagai syarat kelayakan masuk ke program Ijazah Sarjana Muda di Universiti Awam (UA).*	
For Private Higher Educational Institutions: Refer to *Surat JPT/GS 1000-606 Jld. 2(23), 21st April, 2020 - Kemasukan Pelajar Lulusan Diploma Kemahiran Malaysia (DKM), Diploma Lanjutan Kemahiran Malaysia (DLKM) dan Diploma Vokasional Malaysia (DVM) ke Peringkat Sarjana Muda (Tahap 6 MQF) atau yang setara dengannya di Institusi Pendidikan Tinggi Swasta.*	

Notes:

- Experience can be cumulative experience even before acquiring required qualification for a particular level of study, however it must be relevant to the level of study as well as the content.

4.2 Accreditation of Prior Experiential Learning (APEL)

APEL provides an alternative entry route to formal programmes of study from Certificate (Level 3, MQF) to Master's Degree (Level 7, MQF) through recognition of learning and experiences regardless of how and where it was acquired. (Refer to the Guidelines to Good Practices Accreditation of Prior Experiential Learning (APEL)).

5. ACADEMIC STAFF[4]

5.1 Staff Qualifications

"The quality of the teaching staff is one of the most important components in assuring the quality of higher education, and thus every effort must be expanded to establish proper and effective recruitment, service, development and appraisal policies that are conducive to staff productivity." (COPTPA 2nd Edition, 2020).

Table 5 provides minimum requirements of the qualifications of academic staff and ratio for Graduate Certificate's levels. **Besides possessing qualifications in the related field, HEPs must also ensure that academic staff are assigned courses based on their areas of expertise or relevant industry experience.**

Table 5: Qualifications for Academic Staff

REQUIREMENT	NOTES
i. A Post Graduate Degree in a related technical field with ONE (1) year of relevant industry experience and TWO (2) years of teaching experience; OR ii. A Bachelor's Degree (Level 6, MQF) in TVET with ONE (1) year of relevant industry experience and TWO (2) years of teaching experience; OR iii. A Bachelor's Degree (Level 6, MQF) in a related technical field with TWO (2) years of relevant industry experience and TWO (2) years of teaching experience; AND Teaching competency. **(Teaching competency refers to qualification obtained from Education Programme at Diploma level and above).**	- Overall Staff-Student ratio – 1:20 or better. - Full-time and Part-time teaching faculty – At least 60% full-time.

[4] Standards in this area are best read together with Guidelines to Good Practices: Academic Staff and Guidelines: Academic Staff Workload, which is available on the MQA portal: www.mqa.gov.my.

5.2 Academic Staff Development

In order to deliver quality programmes and to produce graduates who are marketable, quality academic staff would need to be employed. Hence, HEPs must ensure that the academic qualifications of their academic staff must be accredited from the relevant accreditation bodies. It would also be an advantage for the HEPs hiring those with certain years of working experience due to a greater versatility. Likewise, HEPs must assist the academic staff to thrive and reach their full potentials by providing rich learning and development opportunities.

Therefore, the **HEPs must provide the academic staff with at least 40 hours per year of Continuous Professional Development (CPD) programmes** to enhance their expertise and skills in teaching, learning, assessment and research. CPD may include participating in training, workshops and conferences; pursuing academic/ professional qualifications; engaging in self-directed study; coaching/ mentoring/ tutoring; and carrying out consultancies and community services. As to continuously enhanced the industrial link of the educators, the HEPs must make it compulsory for all the in-service teaching staff to participate in staff industrial attachment for a cumulative period of **one month biannually** for them to keep abreast in industrial standard and work competencies.

Academic staff exchange and participation in industry attachment should be highly advocated by HEPs in order for their academics to get acquainted with different work settings, allowing for mentoring of junior scholars and researchers and to work with colleagues within the same, similar, or even different research disciplines, consequently building stronger and wider professional networks. Additionally, this may lead to broadening the multi-disciplinary horizons within the HEPs.

6. EDUCATIONAL RESOURCES

“Adequate educational resources are necessary to support the teaching and learning activities of a programme. These include all the required academic and instructional expertise, physical facilities, information and communication technologies, research facilities, and finance” (COPTPA 2nd Edition, 2020).

Higher Education Providers (HEPs) are required to provide sufficient resources conducive to support teaching and learning in the field to ensure a successful achievement of learning outcomes. For lecture and tutorial rooms, and technical support/facilities, sufficient space to accommodate student-centered learning must be provided.

Recommended educational resources include:

1. Sufficient qualified experts in various fields.
2. Technical support / facilities.
3. Research / Project lab.
4. Internet access / Virtual learning objects / Digital learning systems.
5. Tutorial rooms.
6. Lecture halls/rooms (with sufficient audio-visual facilities).
7. Library/resource center (including online resources for teaching and research) with up-to-date resources.
8. Working space/station (with access to Internet).
9. Computer laboratory (with access to Internet).
10. Sufficient access to relevant software according to the needs of the programmes and students.
11. Relevant online data bases, online journals, statistical packages, qualitative analysis software, and citation and referencing software.

7. PROGRAMME MANAGEMENT

“There are many ways of administering an educational institution and the methods of management differ between Higher Education Providers (HEPs). Nevertheless, governance that reflects the collective leadership of an academic organisation must emphasise excellence and scholarship. At the departmental level, it is crucial that the leadership provides clear guidelines and direction, builds relationships amongst the different constituents based on collegiality and transparency, manages finances and other resources with accountability, forges partnership with significant stakeholders in educational delivery, research and consultancy, and dedicates itself to academic and scholarly endeavours. Whilst formalised arrangements can protect these relationships, they are best developed by a culture of reciprocity, mutuality and open communication” (COPTPA 2nd Edition, 2020).

This document will not raise issues pertaining to governance and administration as these are at the institutional rather than at the programme level. In this document, academic leadership is largely focused on suitably qualified persons in the fields to carry out the necessary curriculum monitoring and review. The leaders of the programme should demonstrate knowledge of the field and the attributes of good ethical values in work practices. A person holding the programme leadership position must:

i. have relevant academic qualifications and experience in the area of study;
ii. be able to demonstrate and reflect a broad-based view and perception of the industry and its impact on the environment and society;
iii. have the ability to inspire others to perform at their full potential;
iv. have the ability to listen and communicate effectively and with sensitivity to both individuals and groups;
v. be able to show a strong commitment in translating the organisation’s aspirations through initiatives consistent with the organisation’s purposes;
vi. be able to make sound judgements based on relevant input or information;
vii. be flexible to changing demands and pressures from key stakeholders to achieve individual and organisational goals;
viii. be able to promote continuous learning among staff and student; and
ix. be able to establish a constructive mechanism for collaboration with stakeholders.

The programme leaders, i.e. Programme Coordinator, Head of Programme or equivalent position, must meet the qualification and experience requirements as stated in **Table 7**.

Table 7: Criteria for Selection of Programme Leader

REQUIREMENTS
i. A Post Graduate Degree in a related technical field with ONE (1) year of relevant industry experience and THREE (3) years of teaching experience; OR ii. A Bachelor's Degree (Level 6, MQF) in TVET with ONE (1) year of relevant industry experience and THREE (3) years of teaching experience; OR iii. A Bachelor's Degree (Level 6, MQF) in a related technical field with TWO (2) years of relevant industry experience and THREE (3) years of teaching experience. AND Teaching competency. **(Teaching competency refers to qualification obtained from Education Programme at Diploma level and above).**

8. PROGRAMME MONITORING, REVIEW AND CONTINUAL QUALITY IMPROVEMENT[5]

"Quality enhancement calls for programmes to be regularly monitored, reviewed and evaluated. These include the responsibility of the department to monitor, review and evaluate the structures and processes, curriculum components as well as student progress, employability and performance." (COPTPA 2nd Edition, 2020)

Feedback from multiple sources - students, alumni, academic staff, employers, professional bodies and informed citizens - assists in enhancing the quality of the programme. Feedback can also be obtained from an analysis of student performance and from longitudinal studies.

Measures of student performance would include the average study duration, assessment scores, passing rate at examinations, success and dropout rates, students' and alumni' reports about their learning experience, as well as time spent by students in areas of special interest. Evaluation of student performance in examinations can reveal very useful information. For example, if student selection has been correctly done, a high failure rate in a programme indicates something amiss in the curriculum content, teaching-learning activities or assessment system. The programme committees need to monitor the performance rate in each course and investigate if the rate is too high or too low.

Student feedback, for example through questionnaires and representation in programme committees, is useful for identifying specific problems and for continual improvement of the programme.

One method to evaluate programme effectiveness is a longitudinal study of the graduates. The department should have mechanisms for monitoring the performance of its graduates and for obtaining the perceptions of society and employers on the strengths and weaknesses of the graduates and to respond appropriately. Higher Education Providers (HEPs) are also advised to refer to the Guidelines to Good Practices: Monitoring, Reviewing and Continually Improving Institutional Quality.

[5] Standards in this area are best read together with Guidelines to Good Practices: Monitoring, Reviewing and Continually Improving Institutional Quality (MR-CIIQ) and Guidelines on Terms Used for External Examiner, External Advisor and Advisory Board, which is available on the MQA Portal: www.mqa.gov.my.

Comprehensive monitoring and review of the programme for its improvement is to be carried out with a proper mechanism, considering feedback from various parties. The committee responsible for this should be granted adequate autonomy to carry out its responsibility effectively. It is desirable that the departments work in association with the HEP's central Quality Assurance Unit to ensure objectivity.

The HEPs are expected to provide evidence of their ability to monitor, maintain and improve the quality of the programme consistent with internal and external requirements, and keep pace with changes in the field and the requirements of the stakeholders.

These shall be demonstrated by, but are not limited, to the following:

i. The department must have a Quality Assurance (QA) unit for internal quality assurance of the department working together with the QA unit of the HEP.
ii. A comprehensive curriculum review should be conducted at least once every 3 years. However, updating the curriculum to keep pace with current developments should be conducted at a more regular interval.
iii. Compulsory appointment of an external advisor(s) who are qualified in the relevant fields to provide feedback on programme design and review.
iv. Compulsory appointment of external examiner(s) who are qualified in the relevant fields to review the assessment systems.
v. Dialogue sessions with stakeholders.

In addition, HEPs are encouraged to demonstrate the following:

i. Continual benchmarking against top universities at national and international levels.
ii. Linkages with related professional bodies, government agencies and industry.
iii. Engagement with industry practitioners through formalised mechanisms such as appointment as a member of Board of Studies, or by establishing an industry advisory panel.
iv. Active participation of academic staff at relevant conferences, seminars, workshops and short courses.
v. Presentations by invited speakers, local or international.
vi. Organising conferences, seminars and workshops for HEPs.
vii. Encouraging international exchange amongst students and staff.

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APPENDIX 1

LIST OF PANEL MEMBERS

NO.	PANEL MEMBERS	ORGANISATION
1.	Assoc. Prof. Ts Dr. Razali Hassan - Chairman	Universiti Tun Hussein Onn Malaysia (UTHM)
2.	Prof. Ir. Dr. Khairul Salleh Mohamed Sahari - Co-chairman	Malaysian Qualifications Agency (MQA)
3.	Assoc. Prof. Ir. Adnan Zulkiple	Universiti Malaysia Pahang (UMP)
4.	Madam Nabilah Ooi Abdullah	Exzellent Profis Sdn. Bhd.
5.	Assoc. Prof. Ts. Dr. Muhammad Fahmi Miskon	Universiti Teknikal Malaysia (UTeM)
6.	Mr. Noordin Abdullah	Pusat Latihan Pengajar dan Kemahiran Lanjutan (CIAST)
7.	Mr. Mohd Saiful Nizam Khalid C.A(M)	Jabatan Pendidikan Politeknik dan Kolej Komuniti (JPPKK)
8.	Madam Juliana Abu Bakar	Ministry of Higher Education (MoHE)
	Madam Suhaila Abdul Samad	Department of Skills Development

APPENDIX 2

BODY OF KNOWLEDGE (BoK)

No.	Component	Body of Knowledge	Required Topics	Credit
1	Common Core	Personal Traits and Professionalism	Culture, Value and Virtue	2
			TVET Laws and Regulations	2
			Entrepreneurial and Soft Skills	2
			Professional Services	2
			Leadership and Management in TVET Industry	
2	Discipline Core	Teaching, Learning and Training	TVET Curriculum Design and Development	3
			TVET Curriculum Delivery	3
			TVET Curriculum Evaluation	3
			Educational Technology and E-Based Learning in TVET	2
			Industry Advisory and Career Guidance	2
3	Project	Technical and Innovation	Research and Innovation and Project Supervision	2
			Workshop, Laboratory and Field Work Management	1
4	Industrial Training and Practice	Workplace Industry engagement	Practical Teaching for Sustainable TVET	6
			Total Credit	**30**

DETAILS FOR BODY OF KNOWLEDGE

Component 1 Personal Traits and Professionalism		
Core Competency	**Learning Outcomes**	**Attributes of Knowledge/Skills/ Attitude**
Culture, Value and Virtue	1. Imply a positive attitude during teaching and learning. 2. Conduct conducive sessions for all levels. 3. Create appropriate assessment for special needs.	Skills: Communication; Human Relation; Professionalism; Act as a role model; Green Culture. Knowledge: Gender Sensitivity; Religion; Cultural Norms; Human Rights. Attitude: Personal Commitment, Openness; diversity; Responsibility for self and others.
TVET Laws and Regulations	1. Apply the stated rules, regulations and act in the workplace. 2. Apply relevant rules, regulations and act to all learners. 3. Apply equal treatment to all learners.	Knowledge/Skills: Regulations; code of practices; Human Rights; disciplinary action; Job profile of Career development; Structure of TVET system; Leadership; Supervision and counselling. The change of attitudes towards the standard TVET laws and regulations.
Entrepreneurial and Soft Skills	1. Show a good example of an entrepreneur. 2. Utilise soft skills in the workplace. 3. Promote good ethics, attitudes, values and behaviour. 4. Sharing the best practice in technopreneur approaches.	Skills: Listening; time management; lifelong learning; problem-solving; Green Skills. Knowledge: Communication; motivation; mentoring/ coaching/ delegating/ counselling; conflict management. Attitude: Flexibility; respect for others; openness.
Professional Services	1. Create an expertise profile and establish linkages or networking.	Skills: Planning; Goal Setting; Self-assessment; teamwork; negotiator. Knowledge: Dealing with students;

Component 1 Personal Traits and Professionalism		
Core Competency	**Learning Outcomes**	**Attributes of Knowledge/Skills/ Attitude**
	2. Produce paperwork (client service plan) for potential services. 3. Deliver and report the technical/professional services.	Educational competence; Contacts to parents, businesses; professional practice. Attitude: Willingness to reflect on and optimize their own teaching; Willingness to go through lifelong learning; Collegiality; Role model function.
Leadership and Management in TVET Industry	1. Plan faculty activities to achieve vision and mission. 2. Manage staff's talents for professional development. 3. Design faculty activities to enhance TVET delivery. 4. Apply guidance and constructive feedback	Skills: administrative; problem-solving; troubleshooting; organization management; computing (manual and software); marketing; Team building; Team management; Teamwork; Conflict management; Problem-solving. Knowledge: critical thinking; project management; financial management; basic statistical analysis; Institution development; Evaluation and quality assurance; Social and individual value development, Changes in learning culture; Inclusion; continuous professional development, social learning. Attitude: patience; consistent; openness; Values and standards.

Component 2 Teaching, Learning and Training		
Core Competency	**Learning Outcomes**	**Attributes of Knowledge/Skills/ Attitude**
TVET Curriculum Design and Development	1. Design a Sustainable TVET curriculum according to the standard practices. 2. Apply occupational competencies in designing TVET	Skills: ICT; Time management; Planning; Interpersonal skills; Communication, coordinating; technical writing; forecasting; estimating; higher-order thinking skills; problem-solving. Knowledge: Learning psychology for teaching; Understanding Curriculum;

Component 2 Teaching, Learning and Training		
Core Competency	**Learning Outcomes**	**Attributes of Knowledge/Skills/ Attitude**
	curriculum. 3. Develop a Curriculum document.	Teaching & learning methods; Budgeting; Assessment methods; Learning materials; Evaluation; Learning process management; Student`s needs assessment/ requirements; Future tasks of education; Special features of vocational training; Personality development in school and work; Values education in vocational schools; Influence and importance of media; Adolescence as a phase of life; Living environment of students. Attitude: Personal commitment; patience; openness; forward-looking; integrity; adaptability.
TVET Curriculum Delivery	1. Recognize teaching and learning materials. 2. Demonstrate effective delivery of theoretical and practical sessions. 3. Demonstrate effective theoretical/ practical assessment of/for learning.	Skills: Coaching; English skills; Training; ICT; Mentoring; Teamwork; Blended learning; Project-based learning; Observant. Knowledge: Adult learning; Learning management system; Subject-specific didactics; Vocational pedagogy; Vocational safety and health; punctuality; Structural elements of teaching; Psychosocial, cognitive and moral developments; Reasonable target, content and competence decisions, key qualifications; Didactical reduction; Learning objectives; Application of taxonomies; Teaching outline; Process planning and execution with methodological approach; Interactions; Teaching analysis; Individual support; Social forms and action forms; Forms of interaction. Attitude: Positive thinking; respect of diversity; patience; passion.

Component 2 Teaching, Learning and Training		
Core Competency	**Learning Outcomes**	**Attributes of Knowledge/Skills/ Attitude**
TVET Curriculum Evaluation	1. Organise existing courses. 2. Identify curriculum contents based on current industry needs. 3. Examine the revision of existing courses. 4. Analyse didactical approaches and evaluate their use for learning in the context of digital technology and changes of world of work and work organization.	Skills: Development and utilization of assessment tools; ICT. Knowledge: Measurement; Evaluation; Assessment of learning success; Forms of performance assessment – written, oral, practical, process-oriented; Features of performance assessment; Criteria and quality standards and reference systems; Assessment in closed, open, action-oriented teaching methods; External- and self-assessment; Assessment errors; Repeat, practice, apply; Learning aids; Learning techniques; Individual support Attitudes: Objectivities; fairness; encouraging; neutral.
Educational Technology and E-Based Learning in TVET	1. Develop learning materials. 2. Develop learning materials for Digital Technology and E-Based Learning in TVET.	Skills: Analyse and develop various type of learning material to suite different type of learning preferred style. Knowledge: Justify different learning material for different contexts and content of T&L. Attitude: Passion to develop a variety of learning material creative and innovative in line with Technology change.
Industry Advisory and Career Guidance	1. Identify student's personal profile and academic background. 2. Designate a study planner for the student. 3. Classify the students' needs for academic progress.	Skills: Observant; empathy, academic plan. Knowledge: CQI Documentation, Student's ability, emotional and intelligence quotient. Attitude: Openness; respect for diversity; integrity; passion.

Component 3 Technical and Innovation		
Core Competency	**Learning Outcomes**	**Attributes of Knowledge/Skills/ Attitude**
Research and Innovation and Project Supervision	1. Determine research direction for community needs. 2. Identify the research activities. 3. Conduct and manage research in an innovative direction.	Skills: Create research approach; Identify research gap based on current journals, papers, conferences and feedbacks from the industry; Initiate the supports group; Establish lab facilities; Develop research Gantt chart and milestone; Produce a research proposal; Create implementation strategy via flowchart; Construct field test instruments; Design procedures for data collection; Organise Research resources allocation; Produce a research report; Commercialize research finding or product. Knowledge: Analyse research concept and requirement; Design research scopes and objectives; Analyse research gap; Evaluate literature review; Select data collection methods; Determine analysis methods; Identify funding sources; Identify research materials and equipment; Collect research data; Analyse research data; Validate research data; Interpret research data; Produce academic publication; Produce patent or copyright. Attitude: Follow the research ethics; Adhere to integrity in conducting analysis; Adhere to ethical guidelines in writing paper/ journal; Secure documents; Enforce OSH policies.
Workshop, Laboratory and Field Work Management	1. Produce the plan for laboratory utilization. 2. Discover the workshop and laboratory operation. 3. Manage the purchasing	Skills: Produce safety precautions based on relevant acts and regulations; Display endorsed Standard Operating Procedure (SOP); Schedule preventive maintenance for machines and tools requirements; Produce laboratory/ workshop timetable based on institution's guidelines; Ensure inventory

Component 3 Technical and Innovation		
Core Competency	**Learning Outcomes**	**Attributes of Knowledge/Skills/ Attitude**
	requisition for the training. 4. Plan and execute fieldwork exercises.	system is updated based on regulations for consumable materials, inventory and assets; Report accidents happened in the laboratory and liaised with relevant authority; Select authorized staff based on the competent person; Obtain technical specification of the required consumable item or equipment; Submit technical specification to relevant procurement committee; Record received items in the inventory system. Knowledge: Determine the space, capacity and quantity of machines/tools based on laboratory / workshop layout; Create budget allocation based on requirement and needs; Verify bought items are received in good condition and meet technical specifications. Attitude: Safety first; Cost effective; High integrity; Accountable; Appropriate PPE; Safety measures (machines / consumable); Budget allocation's confidentiality; Procurement document confidentiality; Cleanliness.
Practical Teaching for TVET	1. Develop rapport with supervisor/ supervisee during industrial training and Practices. 2. Determine the skills in supervising, assessment and evaluation in the final year project. 3. Show professionalism in supervising students for sustainability TVET.	Skills: Coordinate industrial training visit; Complete the industrial training by submitting the assessments and feedbacks (academic supervisor, industry supervisor, student) to the coordinator; Assist student with FYP topic; Monitor student progress until FYP completion; Guide student to prepare research proposal and defence; Assist the student in preparing publications; Coach student for viva voce; Assist the student in preparing final thesis/dissertation for submission. Knowledge: Understand assessment requirement; Assess student's progress

Component 3 Technical and Innovation		
Core Competency	**Learning Outcomes**	**Attributes of Knowledge/Skills/ Attitude**
		and obtain company's feedback during on-site visit; Identify FYP title (i.e based on Industrial Training feedback, industry needs, government's policy); Provide guidance for preparing FYP proposal to student; Assess student's FYP performance (i.e Proposal, Logbook, Presentation, Report); Negotiate the scope of research/ topic; Monitor student research progress. Attitude: Positive appearance; Punctuality; Observant; Guidance; Inquiry thinking; Integrity; Professionalism; Clarity; Academic rigour; Practice project management; Practice project timeliness; Practice safety at working areas.

GLOSSARY

1)	Common Core	Required modules to all disciplines related to programmes.
2)	Continuous Assessment	Assessments are conducted throughout the duration of a course/module for determining student attainment.
3)	Discipline Core	Required modules for a specific discipline related to programmes.
4)	Dissertation	Refers to the degree for the master's programme by documentation of the original research prepared and submitted by the candidate for the award of the degree for the master's programme by research and mixed-mode.
5)	Final Examination	An examination or test is scheduled within an official examination period held at the end of an academic term. It serves as the final evaluation of a course or courses of study that affects the academic performance of students.
6)	Final Project	A compulsory task requiring considerable or concerted effort as a supplement to classroom lessons that contributes to the final grading of the programme.
7)	Formative Assessment	The assessment of student's progress throughout a course, in which the feedback from the learning activities is used to improve student attainment.
8)	Industrial Exposure	A student’s experience in an organisation through field visits in the industry that is appropriate to their field. This exercise does not carry any credit values.
9)	Industrial Training / Industrial Attachment	A period of time within the programme when students are required to be placed in the industry to experience the real working environment.
10)	Industry Engagement	Act of cooperation between agencies or/and scholars with industry practitioners to meet the industry needs such as gain profits, sharing knowledge, education-industry collaboration, and maximizing work-integrated learning.

11)	Learning Outcomes	Statements on what a learner should know, understand and do upon the completion of a period of study.
12)	Modules	Components of a programme. The term 'modules' is used interchangeably with subjects, units, or courses.
13)	National Occupational Skills Standard (NOSS)	A document that specifies the competencies required by a skilled worker who is gainfully employed in Malaysia for an occupational area and level, and pathway to achieve the competencies.
14)	Open and Distance Learning (ODL)	The provision of flexible educational opportunities in terms of access and multiple modes of knowledge acquisition.
15)	Programme	An arrangement of modules that are structured for a specified duration with a specified learning volume to achieve the stated learning outcomes. This usually leads to an award of a qualification.
16)	Problem-based Learning	The student-centered approach is in which students learn about a subject by working in groups to solve an open-ended problem.
17)	Project-based Learning	The teaching method is in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge.
18)	Programme Educational Objectives	Broad statements that describe the career and professional accomplishments that the programme is preparing graduates to achieve after they have graduated.
19)	Project Paper	An extended piece of work involving inquiry-based activities. The project may be big or small and undertaken by individuals or groups.
20)	Quality Assurance	Comprises planned and systematic actions (policies, strategies, attitudes, procedures and activities) to provide an adequate demonstration that quality is being achieved, maintained and enhanced, and meets the specified standards of

		teaching, scholarship and research as well as student-learning experience.
21)	Research engagement	Interaction between researchers and research end-users outside of academia, for the mutually beneficial transfer of knowledge, technologies, methods or resources.
22)	Summative Assessment	The assessment of learning, which summarises the progress of the learner at a particular time and is used to assign the learner a course grade.
23)	Trainer	A person who enables a learner or group of learners to develop or acquire competencies toward performing a particular trade or technical work.
24)	Teaching Competency	A recognition of one's ability in performing/ demonstrating required teaching skills for a subject matter.
25)	Qualification	A cluster of units of competency that meets job roles and is significant in the workplace. It is also a certification awarded to a person on successful completion of a course and/or in recognition of having demonstrated competencies relevant to an industry.
26)	Curriculum	Refers to the specifications for a course or subject (module) which describe the relevant learning experiences a trainee or student undergoes, generally including objectives, content, intended learning outcomes, training methodology, recommended assessment tasks, etc.
27)	Competency standard	A description of competency is formed by the knowledge, abilities, skills, comprehension and attitudes required for acceptable performance of a productive function and established as a reference or requirement for qualification. Competency standards are made up of units of competency, which are themselves made up of elements of competency, together with performance criteria, a range of variables, and an evidence guide.
28)	Unit of competency	A component of a competency standard. A unit of competency is a statement of a key function or role in a particular job or occupation.

29)	Instructional design	this covers the planning, delivery and assessment of instruction; the instructional design process includes analyzing a training or performance problem, defining the intended outcomes, determining how to present the content to learners to achieve those outcomes, developing the training course according to the designs, implementing the course, and evaluating its effectiveness. Trainers use instructional design to prepare all types of instruction - courses presented in the classroom, through workbooks, and online.

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