



**KEMENTERIAN SAINS,  
TEKNOLOGI DAN INOVASI**  
MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION



# PROFESSIONAL DEVELOPMENT CERTIFICATION STANDARD

---



# Table of Content

---

## **01 Introduction**

Governance

## **02 Certification**

Programme Certification | Certification Type | Certification Process | Document Requirements and Procedures | The Panels Assessors | Decision Certification | Appeal Procedure

## **03 Part 1 : Company Particulars**

Company Requirement | Support Staff | Resources

## **04 Part 2 : Programme Profile**

Programme Level | Bloom Taxonomy | Programme Structure | Technology and Technical Services | Key Components of Training Design | Assessment Type

## **05 Part 3 : Trainer Profile**

Trainer Requirement

## **06 Fee Structure**

# Preface President of MBOT

---

The role of technologists and technicians is critical to Malaysia's growth in a fast-evolving global landscape. Recognising the need for continuous professional development, MBOT introduces the Professional Development Certification Standard for Short Courses to guide the delivery of impactful, industry-relevant training.

This Standard serves as a benchmark for ensuring the quality and relevance of short courses, supporting the professional advancement of technologists and technicians. Developed in collaboration with stakeholders, it reflects a shared vision for aligning education and training with national aspirations and global standards.

Through TPDC MBOT, we aim to create a skilled, future-ready workforce capable of driving Malaysia's technological advancements. I invite all stakeholders to adopt these guidelines and contribute to this important mission.



**Professor Emerita Datuk Ts. Ir. Dr. Siti Hamisah binti Tapsir, FASc.**

# Preface Chairman of TPDC MBOT

---

The Professional Development Certification Standard for Short Courses is an important initiative that reinforces MBOT's mission to promote lifelong learning and professional growth among technologists and technicians. This Standard sets a clear framework to certify short courses that are both industry-relevant and future-ready, ensuring participants acquire the skills necessary to thrive in a rapidly evolving technological environment.

I believe this Standard provides a structured pathway for training providers to align their programmes with MBOT requirements, as stipulated in the Technologists and Technicians Act 2015 (Act 768), while addressing specific industry needs.

I invite all stakeholders to collaborate in implementing this Standard effectively, ensuring that our efforts in professional development contribute meaningfully to Malaysia's technological and economic aspirations.



**Ts. Dr. Mahaletchumy Arujanan**

# Abbreviations

---

GT	Graduate Technologists
Ts./P.Tech	Professional Technologists
QT	Qualified Technicians
Tc./C.Tech	Certified Technicians
MBOT	Malaysia Board of Technologists
TPDC	Technology and Technical Professional Development Council
TPDS	Technology and Technical Professional Development Secretariat

# **Introduction**

# Introduction

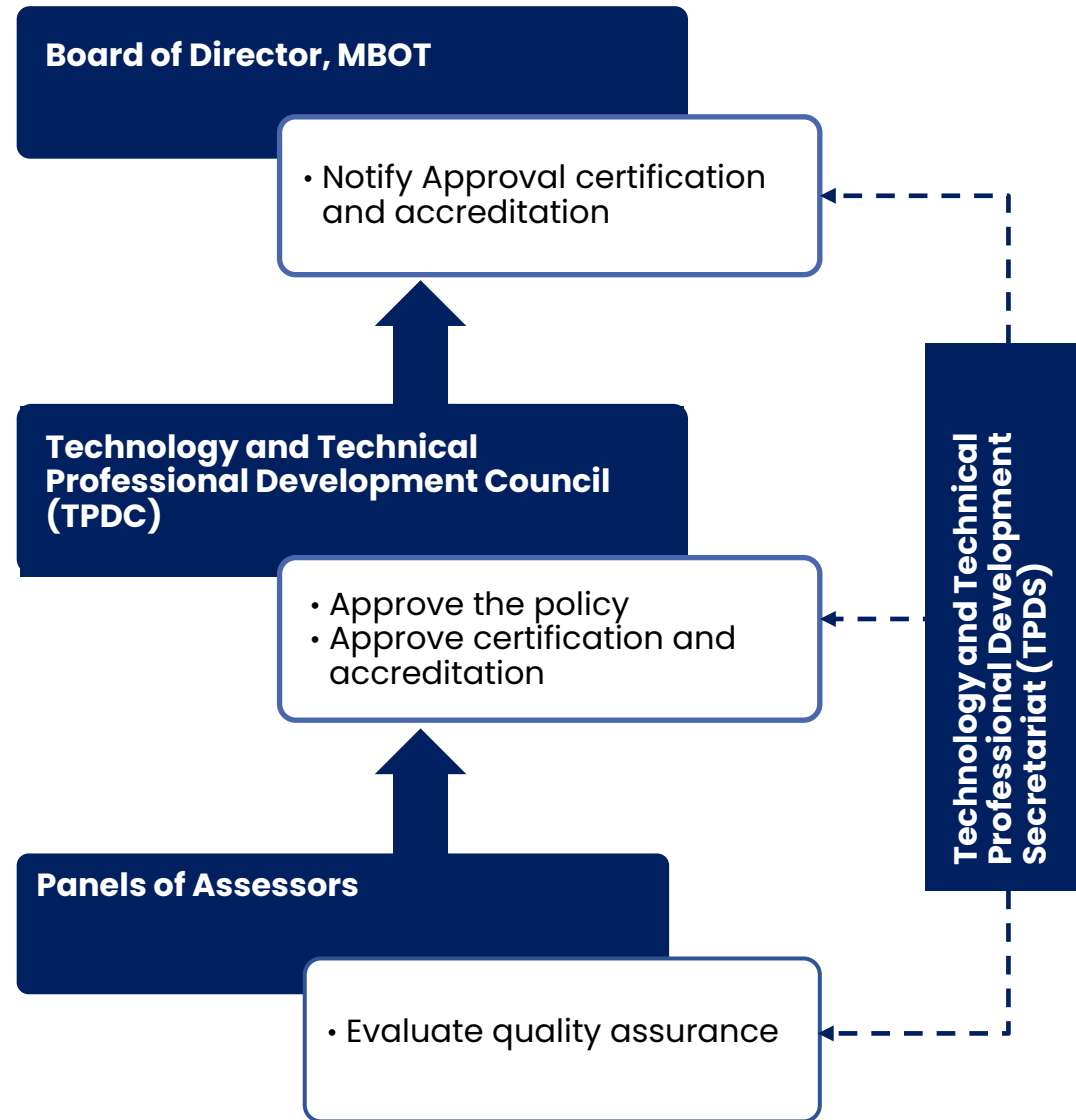
---

The Professional Development Certification Standard establishes a structured framework for evaluating and certifying short courses aimed at enhancing technical and professional skills. Designed to ensure consistency, quality, and relevance, this standard serves as a benchmark for training providers to align their programmes with industry needs and MBOT's requirements.

By adhering to this standard, training providers can deliver high-quality professional development programmes that uphold the principles of lifelong learning, foster workforce competency, and contribute to the advancement of technology professionals in Malaysia.

This certification standard not only benefits the training providers but also supports participants, employers, and industries by ensuring programmes meet the highest standards of excellence and relevance.

# Governance



# **Certification**

# Programme Certification

Programme certification is an external evaluation process that involves submission by the Training Provider, assessment by the Panel of Assessors, and approval by the Council and Board.

## Certification Type



### Certification

The initial evaluation to verify that a programme meets established standards of quality.

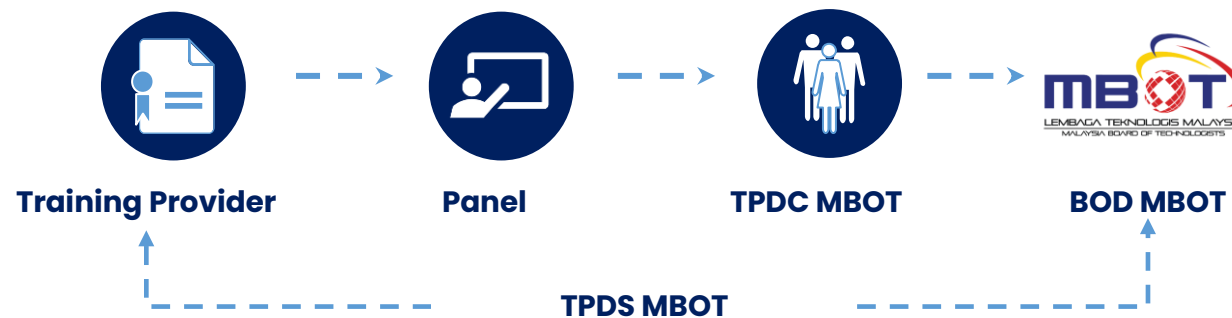


### Re-Certification

The periodic re-assessment to ensure it continues to meet the current standards and remains relevant in a changing industry or field. The re-certification submission must be made at least 4 months before the expiration date.

# Certification Process

1. The Training Provider submits relevant documents to TPDC MBOT for evaluation.
2. TPDC MBOT will review the documents to ensure they are complete and meet the required criteria.
3. The evaluation is normally conducted through a desktop audit. TPDC MBOT reserves the right to conduct an audit visit if necessary.
4. The Panel of Assessors will then begin the evaluation exercise based on the stipulated timeline and process.
5. The Panel of Assessors will prepare a final evaluation report and submit its recommendations to the Council and Board for final endorsement of the certification.
6. After the programme fulfils all specified requirements and receives approval from the Council and Board, it will be granted a certificate, and the results will be published on the official MBOT website.



# Document Requirements and Procedures

---

The required documents for certification submission include:

## 1. **Application Form**

Provide company particulars, programme profile, and trainer profile.

## 2. **Programme Structure**

List all modules and specify the percentage of each module that focuses on technology

## 3. **Module Information (all modules)**

Provide details for all modules

The application must be submitted with the required fees and supporting documents as prescribed by TPDC MBOT. Training Providers are responsible for providing accurate, complete, and verified information that has been approved by the relevant management levels. Failure to comply, including the submission of false or misleading documents during or after the certification process, may result in the rejection of the application with no refund of fees, suspension or revocation of certification, and legal liabilities as stipulated under applicable laws. Training Providers are urged to maintain the accuracy and integrity of all submitted documents to ensure compliance. The template document can be found on the MBOT Portal: <https://www.mbot.org.my/>.

# The Panels of Assessors

---

Panels of Assessors, appointed by TPDC MBOT as Subject Matter Experts (SMEs), serve as independent evaluators to assess the programme quality management practices of Training Providers.

Their key responsibility is to ensure that policies, standards, processes, and resources align with MBOT requirements and support effective delivery. They evaluate quality assurance procedures and their implementation to verify the achievement of the expected learning outcomes.

To ensure a thorough understanding of the guidelines, all panel members must complete the Panel of Assessors Course conducted by MBOT prior to their appointment. This ensures they are well-equipped to carry out their responsibilities effectively. Panel members are selected based on programme relevance, expertise, experience, neutrality, and suitability.

# Decision Certification

---

Based on the findings in the final evaluation report, the Panels of Assessors will recommend one of the following outcomes:

- i. Grant Certification with/without conditions
- ii. Deny Certification, accompanied by detailed reasons.

All programmes certified by TPDC MBOT will receive certification valid for three years. A certificate will be issued, and the certification status will be published on the official website.

If a Training Provider is granted certification with conditions, they must comply with all specified conditions within three months of receiving the result. Failure to meet these conditions within the stipulated time frame may result in revocation of the certification.

# Appeal Procedure

---

Training Providers may appeal to TPDC MBOT for a review of a rejected or revoked certification, subject to the approval of the Board. An independent appeal committee will be formed to review the decision within two weeks of the official outcome.

Based on the appeal committee's findings, the Training Provider may be required to cover any associated expenses. Additionally, the Training Provider may need to submit new documents or information to support their appeal. The decision made by the independent appeal committee is final.

# The Calculation of CPD Hours

Programmes accredited by TPDC MBOT allow to earn Continuing Professional Development (CPD) hours, calculated as follows:

## Total Programme Hours x 1.5 hours

The Training Provider may display the total CPD hours earned by participants. The purpose of CPD is to renew the certificate of registration for Professional Technologists and Certified Technicians only.

# Type of Programme

The following are the types of programmes eligible to apply for accreditation under TPDC MBOT. These programmes are categorised into Formal Education and Informal Education, both of which contribute to the accumulation of CPD hours for participants.

CPD Code	CPD Activity	Criteria / Explanatory Notes	CPD Hours Granted	Remarks
<b>A1</b>	Formal & Informal Education	<p><b>Informal Education:</b></p> <p>This refers to activities conducted by a recognised institution or training provider, focusing on specific technical subjects, sector-specific topics, or generic training. Activities can be carried out either in person or virtually. (e.g., Courses/Training)</p>	Actual Contact Hours	Actual Contact Hours

# Part 1

## Company Particulars

# Company Requirement

BIL	REQUIREMENT	FORMS
<b>1</b>	Company registered or incorporated under Suruhanjaya Syarikat Malaysia (SSM)/ ROS and hold status either:	SSM Form 8 & 49 / Section 17 / SSM Corporate Information (SSM Company Profile)
	i. Berhad or Sdn. Bhd.; Or	-
	ii. Limited Liability Partnership (LLP); or	SSM LLP Registration Form
	iii. Sole Proprietor/ Enterprise; or	Form D or Form E
	iv. Association; or	ROS Form
	v. Cooperatives registered under Suruhanjaya Koperasi Malaysia; or	Registration Certificate
	vi. Government/ Semi-Government	Certificate / Letter or Act of Govt.
<b>2</b>	Each Training Provider must have at least one (1) Professional Technologist (Ts.) or Certified Technician (Tc.)	-

# Support Staff

---



The support staff is classified as staff that are not directly involved in training. Alternatively, they assist the trainers during teaching and learning activities to ensure effective delivery.

# Resources

---



Adequate resources are necessary to support the theoretical and practical activities of training. These include all the required training and safety provisions, communication technologies, and training facilities.

*Lecture Rooms, Auditorium, Laboratories | Tutorial and Discussion Rooms | Internet Access | Software and Hardware Access | General/Specialized Equipment | Experimental Laboratories | Collaboration with External Parties | Learning Management System (LMS) | Virtual Classrooms | Online Libraries and Resources | E-Learning Content | Assessment Tools | Virtual Labs and Simulations | Student Portals | Communication Channels*

# **Part 2**

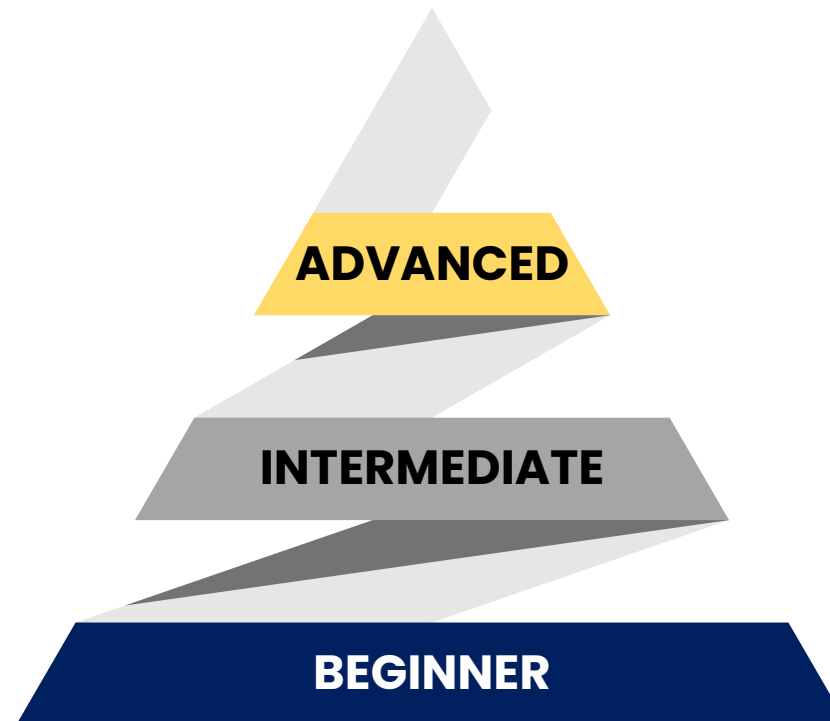
# **Programme Profile**

---

# Programme Level

---

Training providers must deliver training that aligns with the specified scope, including achieving the required certification levels and aligning with the programme structure. The programme encompasses three certification levels, as shown below. The categorisation of the levels is based on the programme outcome according to Bloom's taxonomy.



# Bloom Taxonomy

---

The training provider must incorporate Bloom's Taxonomy in their programme design. Specifically, the programme outcomes and objectives should align with the six cognitive learning levels of the revised Bloom's Taxonomy. Each programme outcome should clearly relate to these cognitive levels to ensure comprehensive learning and measurable progress. The definitions are as follows:



## **Cognitive**

Involves knowledge and the development of intellectual skills.



## **Affective**

Includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes.



## **Psychomotor**

Includes physical movement, coordination, and use of the motor-skill areas.

# Programme Structure

	BEGINNER	INTERMEDIATE	ADVANCED
<b>Duration</b>		Minimum 6 Hours	
<b>Technology Component</b>		Minimum 70% Provide details for technology component by completing the Programme Structure document	
<b>Non technology component</b>		Remaining hours	
<b>Technology and Technical Services</b>		Only provide programmes within the 5 services (Development, Manufacturing, Testing, Commissioning & Maintenance)	
<b>Module Information</b>		Provide details for all modules by completing the Module Information document	
<b>Criteria</b>	Bloom taxonomy level 1 - 2	Bloom taxonomy level 3 - 4	Bloom taxonomy level 5 and above
<b>Bloom taxonomy</b>	<b>Cognitive</b> i. Remember ii. Understand  <b>Affective</b> i. Receiving ii. Responding  <b>Psychomotor</b> i. Perception	<b>Cognitive</b> i. Apply ii. Analyse  <b>Affective</b> i. Valuing ii. Organizing  <b>Psychomotor</b> i. Guided Response	<b>Cognitive</b> i. Evaluate ii. Create  <b>Affective</b> i. Characterizing  <b>Psychomotor</b> i. Complex Overt Response

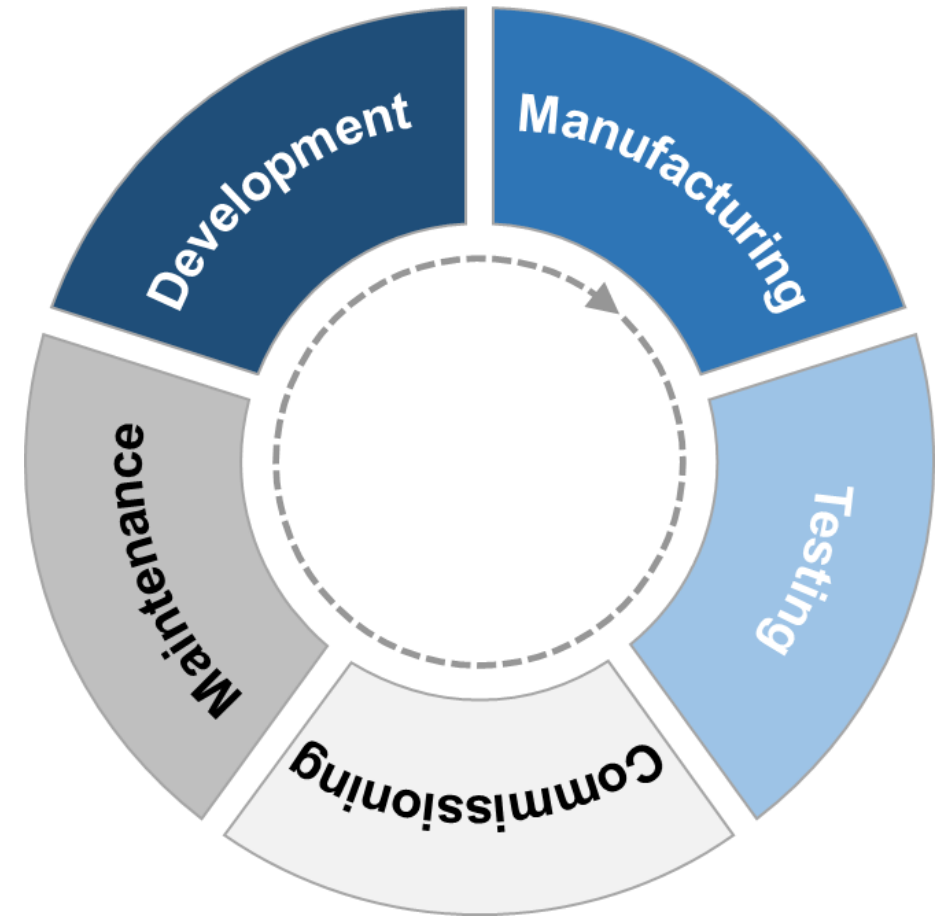
This is just an example; training providers may include any relevant references if available. However, each training provider must include at least one level of Bloom's Taxonomy. Bloom's Taxonomy should be reflected in the programme objectives (outcomes) provided by the training provider.

# Technology and Technical Services

---

The programmes offered by training providers must align with the standards set by MBOT and demonstrate compliance with at least one of the five recognised technology and technical services.

This ensures that each programme is relevant, up-to-date, and meets the professional requirements necessary for certification under MBOT.



Technology and Technical Services

# Key Components of Training Design

The training provider must offer a program that includes both modules and units. The definitions are as follows:



## Programme

A programme is a comprehensive plan comprising modules that provide a broad understanding of a subject, outlining skills and knowledge for practical application.



## Module

A module outlines its purpose, key topics, outcomes, assessments, duration, schedule, and resources to set clear expectations. Providers must use the template to ensure consistency and quality.



## Unit

A unit is a segment of a module that explores specific topics in detail, simplifying complex information.

The programmes offered by training providers must fall under at least one of the 24 technology fields, ensuring that they provide relevant and specialized knowledge aligned with MBOT's recognized areas of expertise

# 24

## FIELDS OF TECHNOLOGY & TECHNICAL RECOGNISED BY MBOT



**BT**

Biotechnology



**BC**

Building & Construction  
Technology



**RB**

Resource Based, Survey &  
Geomatics Technology



**ME**

Manufacturing &  
Industrial Technology



**EE**

Electrical & Electronics  
Technology



**IT**

Information &  
Communication  
Technology



**CM**

Chemical Technology



**CS**

Cyber Security  
Technology



**TL**

Transportation &  
Logistics Technology



**MT**

Material Science  
Technology



**OG**

Oil & Gas Technology



**AT**

Automotive Technology



**AV**

Aerospace &  
Aviation Technology



**FT**

Food Technology



**MI**

Maritime Technology



**AC**

Atmospheric Science &  
Environment Technology



**GT**

Green Technology



**NT**

Nanotechnology



**NR**

Nuclear & Radiological  
Technology



**AM**

Art Design & Creative  
Multimedia Technology



**HM**

Health & Medical  
Technology

# Assessment Type

The training provider must ensure that each programme offered includes at least one type of assessment to evaluate participants' understanding and progress.

**1**

## Practical Exams

**Description:** Hands-on tasks or projects where learners demonstrate their technical skills in a real-world or simulated environment.

**Examples:** Laboratory experiments, machinery operation, software development, circuit building.

**2**

## Written Exams

**Description:** Conventional written or online tests to evaluate theoretical understanding and problem-solving abilities.

**Examples:** Multiple-choice questions, short-answer questions, essay-type questions.

**3**

## Project-Based Assessments

**Description:** Comprehensive projects that require learners to apply their knowledge and skills to complete a task or solve a problem.

**Examples:** Capstone projects, design and implementation of a system, developing a prototype.

**4**

## Oral Presentations

**Description:** Learners present their projects, research findings, or technical concepts to an audience, demonstrating their communication and presentation skills.

**Examples:** Project presentations, technical seminars, viva voce.

5

## Portfolio Assessments

**Description:** Compilation of learners' work over time, showcasing their progress, achievements, and reflections.

**Examples:** Documentation of projects, technical reports, reflective journals.

6

## Simulations

**Description:** Virtual or physical simulations that replicate real-world scenarios, allowing learners to demonstrate their skills in a controlled environment.

**Examples:** Flight simulators, virtual labs, emergency response simulations.

7

## Case Studies

**Description:** Analysis of real-life or hypothetical scenarios where learners apply their technical knowledge to identify problems and propose solutions.

**Examples:** Technological case studies, troubleshooting technical issues, analyzing system failures.

8

## Competency-Based Assessments

**Description:** Evaluations based on predefined competencies and performance criteria, ensuring learners meet specific skill standards.

**Examples:** Skill demonstrations, competency checklists, performance evaluations.

9

## Continuous Assessments

**Description:** Ongoing assessments conducted throughout the programme to monitor progress and provide timely feedback.

**Examples:** Quizzes, in-class activities, regular assignments.

# **Part 3**

# **Trainer Profile**

---

# Trainer Requirement

The trainer must adhere to the following specified requirements outlined below:

- 1 Trainer with relevant qualifications related to the field of the programme provided.
- 2 The trainer must have a minimum of 5 years of professional, industrial, or teaching experience.
- 3 All trainers are encouraged to be registered as Graduate Technologists (GT) or Qualified Technicians (QT)
- 4 For international trainers, endorsement from a Professional Technologist (Ts.) or Certified Technician (Tc.) is required.
- 5 The trainer must fulfil one of the following requirements:
  - i. Hold HRD Corp Accredited Trainer (if the programme is to be registered with HRD Corp); or
  - ii. Hold a Train-The-Trainer (TTT) certificate or Exempted Trainer based on criteria below :
    - a. Criteria A : Certification
    - b. Criteria B : Qualification
    - c. Criteria C : Experience

# Criteria for Exempted Trainer

## CRITERIA A (BASED ON CERTIFICATION)

1. Teacher Training Certificate from Government / International Teacher's Training College:
  - Sijil Guru
  - Sijil Perguruan Khas
  - Sijil Perguruan Asas
  - Sijil Perguruan Ilmu Khas
  - Certificate in Education
2. Diploma, Degree or Master's in Education field from recognized Government / private institutions. Diploma, Degree or Master's from Education Faculty (Fakulti Pendidikan) only. Exception given if Diploma, Degree or Master's from other faculty with condition the word education appears in the certificate. For example :
  - Degree of Education (Sarjana Muda Pendidikan)
  - Master of Education (Sarjana Pendidikan)
  - Diploma of Education (Diploma Pendidikan)
  - Sarjana Muda Sastera (Pendidikan)
  - Certificate of Teaching English as Second Language (TESL) from Education Faculty will be considered for the exemption. Please note that Certificate English as Second Language from Faculty of Language or Faculty of Arts will not be considered for the exemption
  - Diploma / Certificate in Teaching English to Speakers of Other Languages (TESOL)
3. Trainer Certificate from Centre for Instructor and Advance Skill Training (CIAST)
4. Vocational Trainer Certificate endorsed by Department of Skills Development
  - Vocational Training Officer (VTO)
  - Vocational Training Manager (VTM)
  - Vocational Training Executive (VTE)
  - Diploma Vocational Trainer
5. Certificate in Training and Development (CITD)
  - Certificate (4) in Training and Assessment
6. Certified Training Professional Certificate (Institute of Training and Development)
7. Trainers who have acquired valid title of Associate Professor / Professorship from institutions of higher learning

Note: Academic certificates / childhood education / teaching permits / assistant professor do not meet criteria A.

# Criteria for Exempted Trainer

## CRITERIA B (BASED ON QUALIFICATION)

1. Trainers who have attended other TTT programmes that are similar to the curriculum structure of the TTT Programme;

## CRITERIA C (BASED ON EXPERIENCE)

1. Under criteria C, trainer must have completed at least 25 corporate training sessions conducted within the previous 5 years and are following the requirement as below:
  - A comprehensive training for working adults. Training courses with less than 4 hours or targeted at students (school leavers / new graduates / internship program) or induction (orientation / onboarding program) will not be considered corporate training
  - The current year will not be assessed as part of the five years duration
  - The training session meant that the program was completed instead of every module / day during that period
  - To demonstrate a consistent teaching experience (without time gaps or reasoned in your professional profile or curriculum vitae)
  - To list training activities in consecutive years (e.g., 2020, 2019, 2018, 2017 and 2016))
  - To provide details of the training conducted by the trainer and not the training provider's training record:
    - i. To provide client details such as Course Title, Date, Venue, Name of Client, Contact Person and Telephone Number correctly for PSMB audit purposes
    - ii. For public programs, please enter only one client information

# Fee Structure

*The fee will be announced at a later date*

---