

# DAVAO BUS DRIVER TRAINING AND TECHNOLOGY STUDY– PILOT PREPARATION AND IMPLEMENTATION SUPPORT

TRAINING FRAMEWORK

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# ABBREVIATIONS

<b>AASCTF</b>	ASEAN Australia Smart Cities Trust Fund
<b>ADB</b>	Asian Development Bank
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>DOTr</b>	Department of Transportation
<b>GEDSI</b>	gender equality, disability, and social inclusion
<b>HPBS</b>	High Priority Bus System
<b>LTFRB</b>	Land Transportation Franchising and Regulatory Board
<b>LTO</b>	Land Transportation Office
<b>NC III</b>	National Certificate for Driving (Bus Driving)
<b>PESTEL</b>	political, economic, social, technological, environmental and legal
<b>TESDA</b>	Technical Education and Skills Development Authority

# 1 PROJECT OVERVIEW AND OBJECTIVES



## 1.1 PROJECT OVERVIEW

### 1.1.1 ASEAN Australia Smart Cities Trust Fund

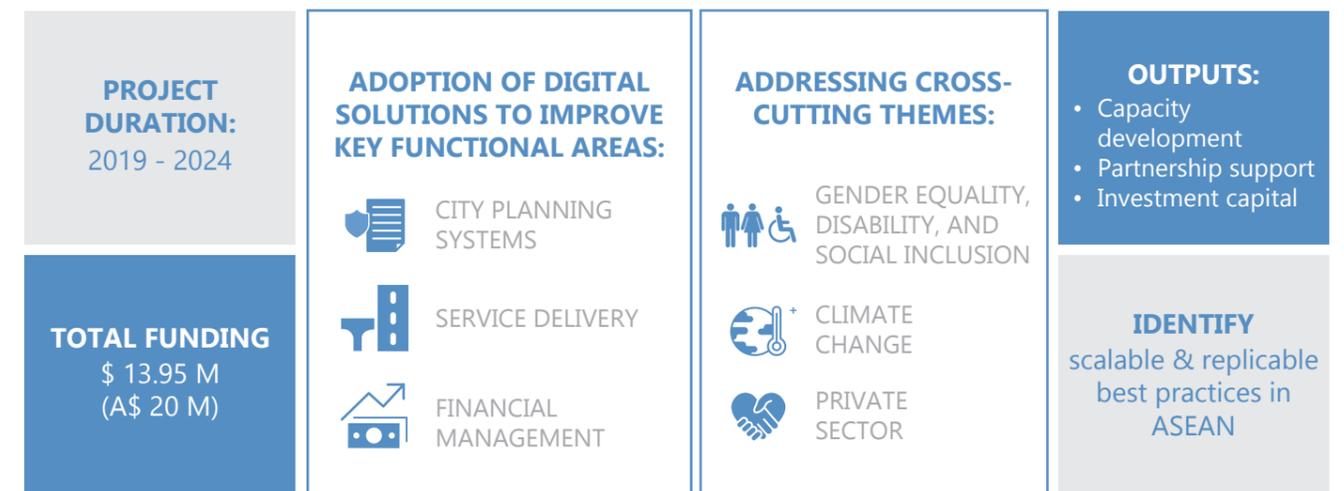
The ASEAN Australia Smart Cities Trust Fund (AASCTF) is a five-year program financed by the Government of Australia and managed by the Asian Development Bank (ADB). The program’s goal is to catalyze people-centric smart city transformation in Southeast Asia.

As of 2022, AASCTF has engaged with over 20 cities of varying sizes and smart city readiness across eight countries of the Association of Southeast Asian Nations (ASEAN). Engagement under the trust fund comes in different forms, depending on the needs, interests, and traction within the different participating cities. The forms of engagement spans awareness raising, knowledge sharing, and capacity building, to a diverse array of pilot-scale interventions at both city and regional level.

The overarching aim of AASCTF is to deliver impact within the trust fund’s three key functional areas of planning systems, service delivery, and financial management. Crosscutting themes of gender equality, disability, and social inclusion; climate change; and the private sector are furthermore embedded within the targets and monitoring framework of each trust fund activity and intervention.

Since November 2019, Ramboll has been engaged as the main implementing partner of ADB under a framework contract. Through the trust fund’s city and regional interventions, Ramboll and ADB (with support from the Australian Government) are working together to create proofs of concept that will allow the identification of replicable and scalable solutions to support cities across the ASEAN region to become smarter and more livable.

Figure 1: Overview of the ASEAN Australia Smart Cities Trust Fund Framework



*Catalyzing people-centric smart city transformation in Southeast Asia*

Source: Ramboll.

### 1.1.2 Davao High Priority Bus System

Davao City is the third largest city in the Philippines with a population of over 1.78 million in 2020. With the aim of becoming one of Asia's leading smart cities, Davao has announced ambitious projects to upgrade its intelligent transport management system and intelligent operations center as part of its comprehensive transport road map. In 2022, about 80% of trips done in the city used public transport. The Davao population is estimated to exceed 2 million by 2028. Hence, the city's transportation system needs to support the large travel demands sustainably and safely.

As part of its transport road map, the Davao City Government is modernizing its mobility network, supported by ADB. The plan includes replacing public utility jeepneys with a public bus network under the ADB-financed Davao Public Transport Modernization Project, or more commonly known as the High Priority Bus System (HPBS) Project, which is led by the country's Department of Transportation (DOTr). The project aims to incorporate the latest concepts, such as a centralized cashless payment system, bus detection at signals, and priority bus lanes. Arup was engaged as the consultants for the HPBS Project. They are responsible for the specification and designing of vehicle procurement and civil works, including the physical development of a bus driving course.

### 1.1.3 Davao Bus Driver Training: Technology Analysis, Demonstration, Regulatory Structuring, and Training Framework

The new public bus network will require professional bus drivers who can meet the greater responsibility and demands of the modern public bus system. The drivers will have to adhere to stricter regulations and standards compared to those of the jeepney drivers. Thus, this will require the establishment of a bus driving course with a program that facilitates the training of prospective public bus drivers, which will include former jeepney drivers.

Traditional training programs focus on on-the-road training, which is an undoubtedly necessary component. However, technology could be used to streamline processes and procedures to ensure comprehensive training across varying conditions and enable a culture of continuous education and improvement.

Ramboll, through the AASCTF, is tasked with identifying training technologies that will upskill the workforce and prepare them for the unique conditions of driving a modern bus system in Davao. The AASCTF project includes user needs gathering, technology review, demonstrating a potential system, and the development of a training framework that describes the learning journey and identifies the modules that should be developed for the HPBS training program.

The use of technology in training is key because it prepares the staff for a modern transport network, allows for simulation of high-risk environments, enables the training to be scaled up in terms of the number of bus drivers, and could also shorten the duration of the training. As such, in training drivers for the modern public transport network, it is essential to leverage technologies.

Examples of technology usage include simulators and other virtual reality/augmented reality/mixed reality and gamification technologies that can facilitate the training and be easily customized, maintained, and updated by the owning stakeholder (potentially local authorities and/or operators).

The Davao Public Transport Modernization Project will offer the rest of the Philippines with benchmarks in terms of systems and infrastructure; and in terms of driver skills, competencies and attitudes particularly toward accessibility and inclusion.

## 1.2 PROJECT OBJECTIVES

The AASCTF project will conduct a study to determine the training needs of the drivers, undertake a market study of solutions, and provide recommendations on the appropriate interventions and implementation arrangements (operational model) for the Davao or HPBS bus driver training program.

The project aims to deliver the following as part of its fundamental value proposition:

- A training needs-oriented selection of appropriate technologies.
- An independent review of driver training technologies, which is both impartial and outside of suppliers' influence.
- Review of the existing practices of similar bus academies that can be applied to the Philippine setting.
- A training program and resource base centered on pooled training technologies to increase the utilization of the equipment, providing a greater return on investment while reducing the barriers to entry for private operators.
- New standards for driver training as a prerequisite to acquiring a driver's license.
- An operational model that can be managed and maintained in the long term by the lead stakeholder.
- A training paradigm that actively supports the Sustainable Development Goals, particularly highlighting drivers' roles and attitudes that advance the achievement of accessibility targets

Guiding questions to achieve the project objectives are:

1. What are the technical and attitudinal training needs?
2. What are the solutions available in the market?
3. What are the procurement models and costs?
4. What are the operating models and costs?
5. Which vendor should be selected?
6. What training do the drivers need to take?

## 1.3 DOCUMENT PURPOSE

The purpose of this training framework is to be a guiding document for relevant stakeholders and other entities that will be involved in the implementation of the Davao bus driver training program, as required for setting the regulatory requirement, which can then determine the standard and quality of bus driving in the city. The training journey in this document should be adopted in whole, across various stakeholders, to ensure a driver who is prepared to drive for a fixed-route public bus network in the Philippines.

This document also considers the outcomes from the relevant engagement activities conducted prior to developing the framework, including the outreach conducted with key stakeholders, vendors, and experts, and the engagement done through workshops.

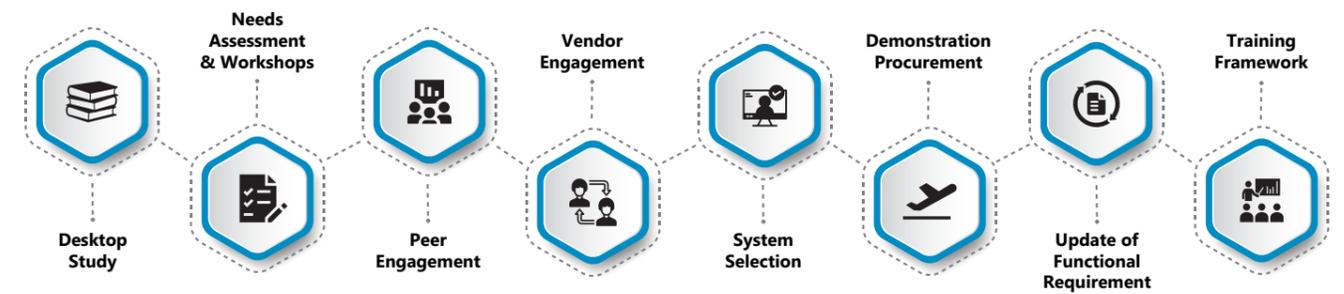
# 2 PROJECT WORK PLAN AND STATUS



## 2.1 OVERVIEW

The AASCTF project will produce a training framework that will identify the contents of the future bus driver training program. The work plan is tailored to ensure that the product aligns with stakeholder needs, to the extent possible. It includes workshops to gather and assess needs, research, vendor engagement to identify and evaluate systems, and a pilot to demonstrate the capabilities and constraints of potential systems first-hand. The overall work plan is displayed in Figure 2.

Figure 2: Task Order Methodology



Source: Ramboll.

The project culminates in a set of requirements that could be used to procure technology to support the training program; a driver training framework that describes the learning journey of the future drivers; and an operations concept that identifies the optimal place for the program to sit from a regulatory perspective and within the context of the Davao HPBS procurement. The associated deliverables under the project or task order are described in Table 1.

Table 1: Task Order Deliverables

Stage	Deliverables
<b>Stages 1 and 2: System Selection</b>	Inception and Preliminary Findings Report
	Engagement Report and Functional Requirements
	Preliminary Evaluation and Shortlist
	System Selection Report
<b>Stage 3: Demonstration on Support and Training Program Framework</b>	Implementation of Demonstration
	Procurement and Operations Recommendations and Revised Functional Requirements
	Holistic Training Framework

Source: Ramboll.

## 2.2 WORK PLAN PROGRESS AND KEY MEETINGS

A summary of the project activities for each task is shown in Table 2.

**Table 2: Task Activities**

Task	Task Activities to Date
<b>Desktop Study</b>	<ul style="list-style-type: none"> <li>• Research 30 vendors</li> <li>• Summary of capabilities</li> <li>• Shortlist of promising technologies</li> </ul>
<b>Needs Assessment and Workshops</b>	<ul style="list-style-type: none"> <li>• Workshop 1 – Key Stakeholders</li> <li>• Workshop 2 – Private Sector/End Users</li> <li>• Workshop 3 – Drivers</li> <li>• Workshop 4 – Key Stakeholder Follow-up</li> </ul>
<b>Peer Engagement</b>	<ul style="list-style-type: none"> <li>• Interviewed: Skånetrafiken – Sweden Public Transport Authority</li> <li>• Interviewed: Sweden Public Transport Operator</li> <li>• Planned: Singapore Land Transport Authority</li> <li>• Planned: SMRT (Singapore)</li> <li>• International benchmarking</li> </ul>
<b>Vendor Engagement</b>	<ul style="list-style-type: none"> <li>• Sent: Email and phone correspondence with promising vendors</li> <li>• Planned: Inquiry regarding potential pilot</li> </ul>
<b>System Selection</b>	<ul style="list-style-type: none"> <li>• Reviewed: Initial long list of 30+ vendors. Reduced to shorter list of 10+ vendors during Stage 1 review</li> <li>• Engaged: Vendors in interviews and email questionnaires</li> <li>• Planned: Further shortlist to up to three vendors</li> </ul>
<b>Demonstration</b>	<ul style="list-style-type: none"> <li>• On-site demonstration held in Davao, Philippines in early 2023 (date of demonstration: 31 January to 2 February 2023)</li> <li>• Vendors showcase the digital learning and simulators to the city, drivers, and public</li> </ul>
<b>Updated System Selection</b>	<ul style="list-style-type: none"> <li>• Type of simulation and digital simulation to be used for the drivers</li> </ul>
<b>Training Framework</b>	<ul style="list-style-type: none"> <li>• Planning stages</li> <li>• Overall learning journey</li> <li>• Outline of indicative learning modules</li> <li>• Training methodology framework</li> <li>• Training implementation plan</li> </ul>

Source: Ramboll.



# 3 TRAINING FRAMEWORK SCOPE



## 3.1 OVERVIEW

A training framework provides a basic structure for how the training will be conducted and focuses the initiatives on the training needed for the target audience. In this case, the training framework will be the guiding concept for the content developers of the HPBS bus driver training program.

A holistic training framework takes all aspects of a certification program into account. It covers how learning is understood and how this will affect the design of the program for the bus drivers taking the driving course. The framework explains and illustrates the learning journey concept which will act as guidance for the content creator of the training program. The learning journey concept will ensure that the training developed for the upcoming bus drivers is founded on solid theories about modern workplace learning and adult development. This holistic training framework also clarifies which modules need to be certified, the core and noncore competencies, and which modules are for a digital learning format, for a simulator, or for a hands-on in-bus training. It also determines the approximate number of hours of training needed to complete the certification. Finally, it establishes the continual education requirements and determines how drivers will be assessed. The framework clarifies the responsibilities of the operators and the developers of the training program and gives insights into what is expected when designing the full-fledged modern bus driving course for the HPBS.

## 3.2 HOW TO READ AND USE THE TRAINING FRAMEWORK

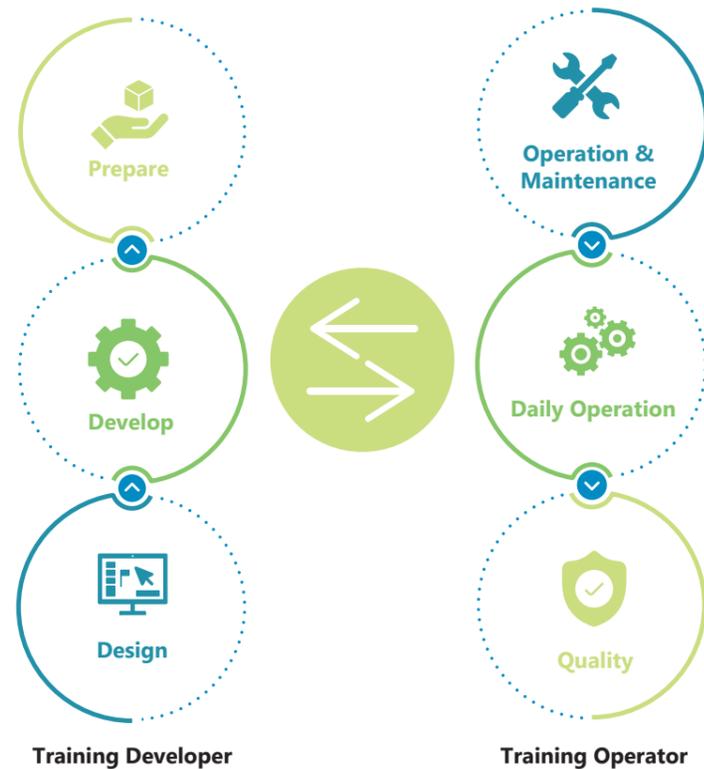
Different stakeholders will be using the training framework as their guiding document for developing their part of the HPBS driving program. This section clarifies how the framework should be read by different stakeholders and how it can be used in designing and developing the training program. Figure 3 presents the stakeholders and readers of this document. Figure 4 illustrates the roles of training developer and training operator.

Figure 3: Training Framework Stakeholders and Readers



Source: Ramboll.

Figure 4: Training Program Developer and Training Operator Roles



Source: Ramboll.

### 3.2.1 Training Developer

The training developer can use this document to get insights on what is expected in terms of their role in designing and developing a modern training program for the bus drivers under the HPBS driving course institution.

Through workshops and engagement activities, data has been collected to clarify and outline the needs and requirements of Davao City, particularly owning stakeholders, the general public, and the jeepney drivers. These insights informed the training modules suggested for the learning journeys (described in Chapters 6 and 7). These suggested training modules can be adapted to suit the current context and can be further discussed by the training developer and the project team in alignment with this report.

However, there are elements of the training framework that the training developer is expected to consider when designing and developing the training program. The developer must include the overall learning themes (Chapter 6.1) and crosscutting themes (Chapter 6.2) as aspects of the training modules. The training program should have the three formats – on-road training, digital learning, and simulations – included in the design. Classroom training can be a part of or an addition to the simulation training. Furthermore, the training developer should include the learning journey concept (Chapter 5) in the design of all modules, with a special focus on the steps or elements of the learning journey—assess, engage, explore, apply, and reflect and impact.

### 3.2.2 Training Operator

The operator of the driving course can use the training framework to gain insight into the proposed activities of the driving course as well as the technical requirements needed for the training program to be conducted.

The operators should work in collaboration with the training developer and the stakeholder agencies to agree on their responsibility related to the training program and how to maintain the program in the future. Further information relevant for the driving course operators can be found in the project’s other deliverable (D5), the *Operations and Maintenance Concept Report*.

## 3.3 WHAT IS INCLUDED IN THE TRAINING FRAMEWORK?

The training framework includes a summary of the engagement activities that have formed a central input into the development of the learning journey design, which visually presents the elements expected to be included in the training to be prepared by the training developer. The framework also describes the elements in high-level detail, although it does not provide a thorough description of each module’s content. This is expected to be provided by the selected training developer.

Figure 5: Key Information Provided in the Development of the Training Framework



Source: Ramboll.

The training framework also describes the requirements for the training itself and the ongoing re-certification programs. Requirements for operations and maintenance have been described in the *Operations and Maintenance Concept Report (D5)* and will not be repeated in full length in this framework. Only elements that support the proposed training in the training framework will be included.

Lastly, the outline on how to measure the impact of the training program to ensure the training meets the requirements and have the desired effect will be established.

### 3.4 KNOWLEDGE GAPS

This section highlights some of the gaps that influence how the training framework is written and how the different readers can use the document.

At this stage, the developer of the training program is unknown—whether it will be an external training developer who will primarily deliver the training or a collaboration between the external vendor and stakeholder agencies. This needs to be decided before the implementation of the pilot driving course. In discussions with key stakeholders in Davao in September 2023, a potential way forward was adopted and is documented in the D5 report.

Another unknown is who will deliver the full content of the modules included in the learning journeys. Hence, the specific content for each module is not described here in detail. All modules presented in this training framework are suggestions for the training developer and will be up for discussion when a suitable developer has been selected. The modules presented in the framework are all based on the data collected during the initial workshops and engagement activities and are therefore relevant to include now and later discuss. The modules were validated in discussions with all key and owning stakeholders, including the Land Transportation Office (LTO), Land Transportation Franchising and Regulatory Board (LTFRB), the Technical Education and Skills Development Authority (TESDA), DOTr, and the Davao City local government unit (LGU), during a workshop in Davao in September 2023.

The full extent of the requirements for maintaining the driving course and who will have the full responsibility to do so are unknown. The recommendations for the operations and maintenance of the driving course institution are explained in the D5 report.



# 4 ENGAGEMENT ACTIVITIES



## 4.1 ENGAGEMENT ACTIVITIES FOR CREATING THE FRAMEWORK

To create the training framework, the following engagements were conducted:

- (i) a desktop review of comparable training programs;
- (ii) continuous stakeholder consultations and workshops (online and offline) with private sector groups, interest groups, and drivers (summarized in Appendixes 1 and 2);
- (iii) peer engagement;
- (iv) vendor engagement and system selection;
- (v) demonstration preparation, including stakeholder and vendor engagement;
- (vi) desktop research of global driving training guidelines (a benchmarking exercise where the outcome is to derive findings relevant to the D5 report and this Training Framework report or D7); and a
- (vii) training syllabus analysis of simulator vendors' driving modules.

For details, see the *Davao Bus Driver Training Technology Pilot, Procurement & Framework – Engagement Report*, also referred to as D2.<sup>1</sup>

From the approach above, four core themes were identified to form and guide the framework (Figure 6). A fifth theme, “Transition to the HPBS,” was also added to accommodate the need for a transition period for the jeepney drivers and their families.

Figure 6: Core Training Themes



HPBS = High Priority Bus System.  
Source: Ramboll.

Additionally, the engagements allow the formulation of crosscutting themes that should be present in all training modules included in the different learning journeys. The crosscutting themes are Gender Equality, Disability, and Social Inclusion; Sustainability; and, Health and Safety.

<sup>1</sup> AASCTF. 2022. *Davao Bus Driver Training Technology Pilot, Procurement & Framework – Engagement Report*. <https://events.development.asia/materials/20221103/davao-bus-driver-training-technology-pilot-procurement-framework-engagement>.

## 4.2 COMPARABLE TRAINING PROGRAMS IN OTHER MAJOR CITIES

Comparable training programs were reviewed and benchmarked to inform the high-level aspects the training framework needs to consider in order to set the regulatory requirements for the HPBS. These comparable training programs are from Alberta, Canada; Hong Kong, China; Ireland; Singapore; the United States; and the United Kingdom. The comparison summary of these programs is in Appendix 3.

This exercise is to ensure the training framework is prepared on reasonable ground including consideration of stakeholder enrollment, number of training hours, and potential modules to cover.

The training framework is not directly comparable with these training programs, as the training framework only sets the scene and guiding regulatory requirements for the training. This training framework still needs to be further developed and turned into a comprehensive training program comprising detailed training modules, timeline, tools and materials, and assessment approach.

### 4.2.1 Assessing the Training Operator and Training Developer Roles

Following the review of the different training programs, and based on stakeholder engagement in August 2022, the implementation of the bus driving course will be a joint effort between the LTO, LTFRB, and TESDA. This means no major change is needed to the current regulation, except between LTO and TESDA (who currently holds the roles for training program establishers) – they need to ensure an appropriate training program that is aligned with this training framework. It was also agreed that a new driver's license class will be created for the HPBS and potentially throughout the Philippines.

### 4.2.2 Common Training Modules

With all the various modules from the array of training programs in different countries and major cities, the common modules that can be considered as critical for adopting in the training framework include the following:

- Employment in the Busing Industry
- Vehicle Component and Inspection Activities
- Basic Driving Techniques
- Professional Driving Habits
- Off-Road Tasks and Maneuvers
- Documents, Paperwork, and Regulatory Requirements
- Hours of Service Compliance
- Passenger Management, Loading and Unloading Passengers
- Module of Handling Emergencies

### 4.2.3 Hours of Training

Furthermore, upon comparing the current training program in Davao against the other bus training courses in other cities, there are clear differences in the number of training hours followed and the type of entity establishing the training structure. Most major cities set a guiding duration of conducting bus driver training courses within a range of 20–60 hours. In Hong Kong, China, the government sets a guiding duration of 30 hours, of which 16 hours are mandatory. In Davao City and in the Philippines, the training duration for the TESDA National Certificate for Driving (Bus Driving), or NC III, is 122 hours. As a criterion for the license, the LTO requires a minimum of 23 hours of training to be completed, comprising 15 hours of theoretical lessons and 8 hours of practical training.



# 5 LEARNING JOURNEY CONCEPT

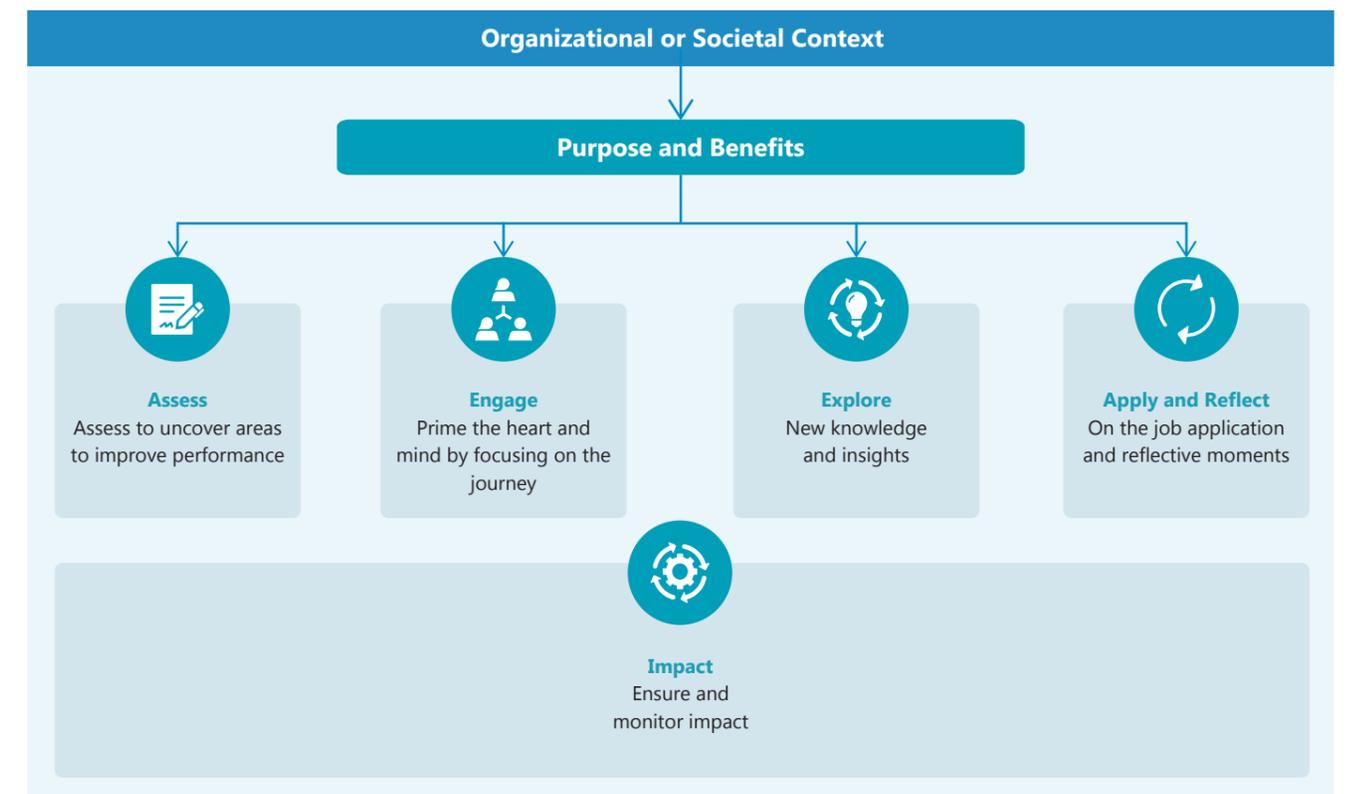


## 5.1 OVERVIEW OF THE LEARNING JOURNEY CONCEPT

The learning journey concept that was created is designed to capture all the training needs for future bus drivers. Figure 7 illustrates what the learning journey concept covers. The model leverages engagement activities and workshops to collect the right sets of data which is used to design the high-level content of the training framework. The primary focus of the model is to connect the organizational and societal context with the purpose and benefits of the bus driver training program, which will then create the basis for the needed training.

The following subsections in this chapter elaborates the learning journey concept adopted to create this training framework.

Figure 7: Learning Journey Concept Coverage



Source: Ramboll.

## 5.2 BEFORE DESIGNING THE LEARNING PROGRAM

The first two steps of the learning journey concept – (i) organizational or societal context (the outer layer of the model) and (ii) purpose and benefits (the second layer of the model) – take place before the design of the actual training modules and other components included in the learning journey. This means that before developing the content for the learning journeys, the organizational or societal context that the learners are a part of and the purpose and benefits of the training program need to be considered. Starting with these two steps provides the necessary knowledge to design and develop a learning journey suitable for the HPBS bus drivers.

- **Step 1: Organizational or Societal Context.** This focuses on the macro perspective that the training should take place in, particularly understanding the macro dynamics and culture influencing the program’s target audience, whether the cultural influence is coming from an organization or society. This should be taken into account when designing the program.

The full political, economic, social, technological, environmental, and legal (PESTEL) analysis could be the method used to get a deeper understanding of how the political scene, economic status, social setting, technological access, environmental influence, and legal regulations could affect the training program. It could also be a more targeted PESTEL, which was the approach used in this project.

When using the targeted PESTEL method, naturally only some of the aspects from a full PESTEL are chosen and explored in the context. For this training framework, special interest was placed in understanding the political and organizational scene influencing the shift toward an HPBS and the need for qualified bus drivers, as well as the social setting the upcoming bus drivers are in, and how the technological access could impact the technical aspects of the training program.

Stakeholder engagement activities, such as virtual and on-site workshops in Davao, were conducted to target the described areas and gather valuable insights from public stakeholders and jeepney drivers. Insights from these engagements are summarized in Appendix 1 and Appendix 2, and also explained in detail in the *D2 Engagement Report*.

- **Step 2: Purpose and Benefits.** The purpose and benefits section of the concept frames the learning journey and ensures that there is a clear target in mind. In this section, the purpose of the training is defined, as well as the conduct of the training, and the benefits for the learner or society. The purpose of the Davao bus driver training program is to primarily help jeepney drivers to transition into becoming a bus driver, as well as create a modern bus driver training program that is sustainable in the future. In terms of benefits, the learner will be trained according to the specific needs in Davao, and for the city it will be having highly qualified bus drivers.

### Box: Purpose of the Davao Bus Driver Training Program

The purpose of the Davao bus driver training program is to primarily help jeepney drivers to transition into becoming a bus driver, as well as create a modern bus driver training program that is sustainable in the future. In terms of benefits, the learner will be trained according to the specific needs in Davao, and for the city it will be having highly qualified bus drivers.

Source: Ramboll.

## 5.3 DURING THE LEARNING PROGRAM

The following five steps are taken as part of designing the training modules and need to be considered by the training vendor at every step of the design and development process. The steps ensure that the developed learning journey has content that is relevant and engaging and is connected to modern adult learning practices.

- **Assess.** Including an assessment in the training program depends on whether there are core and non-core elements in the training and whether there are differing entry levels among learners. If all the learners are at the same level when entering the program and all elements are core or mandatory, then an assessment is not necessary and should not be included. However, if there are different levels of experience and non-core elements along with core elements, then an assessment could be beneficial for the learners.

In this case, there will be multiple experience levels among the jeepney drivers, but also for the non-jeepney drivers that want to qualify for the HPBS. Therefore, an assessment could be included. However, if elements of the learning journey will be included as part of the statutory requirements for obtaining a license, the LTO should consider if waiving elements of the requirements fit within the regulatory context. Allowing potential drivers to test out of elements of the training may not be optimal if the trainings are prerequisites for obtaining a license. If assessment is opted for, the learner’s knowledge should be assessed, and based on this, more tailored learning options could be provided. This assessment could, for example, give learners the opportunity to skip sections they are already skilled at or only get recaps to refamiliarize themselves with the recapped topic.

- **Engage.** The engage section should prime the mind and heart of the learner. A clear storyline is created for the learner to follow so they understand what they need to complete to achieve the certification and, more importantly, why they need to complete these elements. It should always be clear to the learner where they are in the learning journey, what is expected of them, and why it is expected of them.
- **Explore.** Modules included in the learning journey should have an element of exploration. “Explore” focuses on incorporating parts, gives new knowledge and insights, and builds the capabilities the learner needs to acquire.
- **Apply and Reflect.** Training modules should also include applications that let the learner apply their acquired knowledge and competencies into the context they need and reflection exercises that create a space for the learner to reflect on what they have learned. Having a balance between exploring, applying, and reflecting is essential to all adult learning and should be described clearly in the learning design and be distinct in all modules included in the learning journey.
- **Impact.** All training should be developed with creating impact in mind, which means that the learning journey a learner goes through should have an impact on themselves, the organization, and/or society. Impact can be measured in many ways. In this framework, the Kirkpatrick Assessment Model is used and is described in detail in Chapter 9: Measuring Impact.

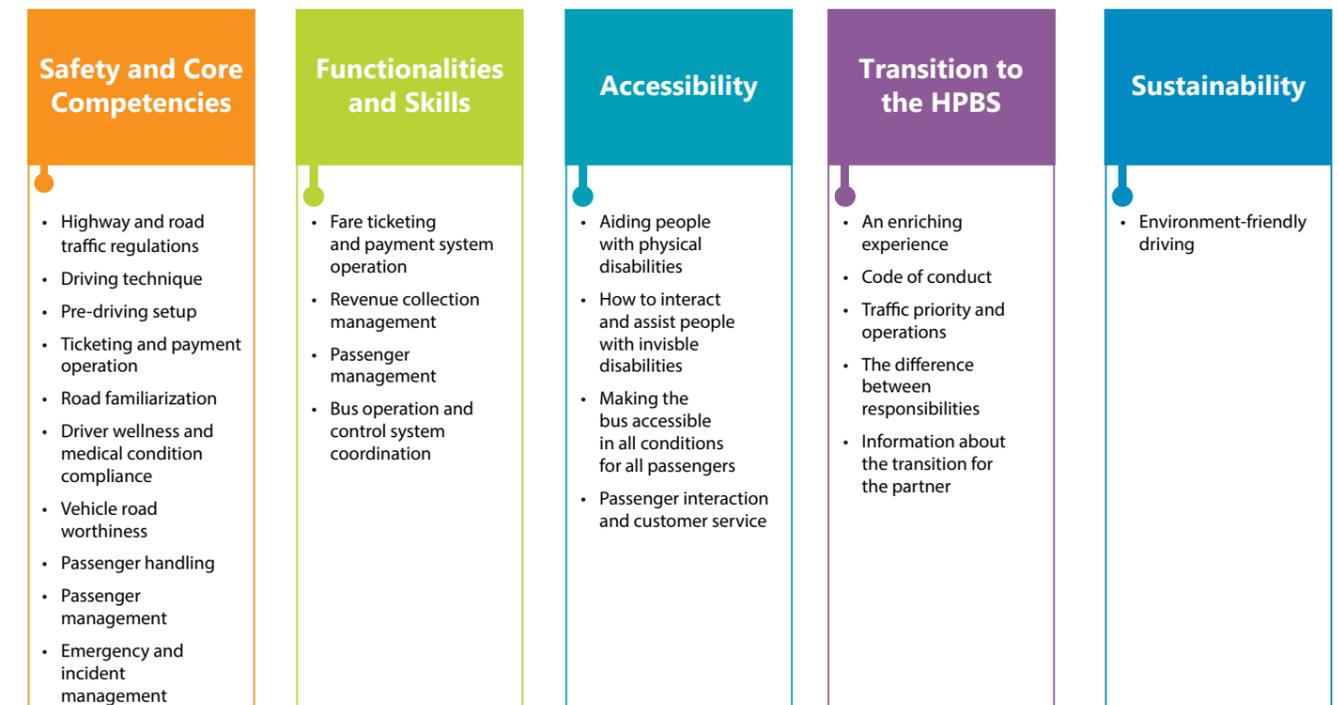
# 6 LEARNING JOURNEY FOR NEW BUS DRIVERS



## 6.1 CORE TRAINING THEMES USED IN THE LEARNING JOURNEYS

Figure 8 illustrates the five core training themes that were created based on the findings from the engagement activities (Chapter 4). Under each theme, suggested sub-themes have been formulated based on insights from the initial workshops and ongoing engagement activities, and taking inspiration from the TESDA NC III (with a focus on core competencies).

Figure 8: Overview of Training Themes



HPBS = High Priority Bus System.

Source: Ramboll.

These themes serve as the baseline for the functional requirements for the training modules in the different learning journeys. Similar themes were used to establish the requirements for the training technology and reusing them in this training framework creates a connection between the technical aspects of the training program and the content to be developed for the training program.

Any parties appointed to the training developer role and training operator role must consider the themes in the overall training design.

## 6.2 CROSSCUTTING THEMES

Developing training modules from the five core themes must include and/or take into consideration the following crosscutting themes. While these are not identified as individual core themes, they are intended to be embedded across the training modules.

**Gender Equality, Disability, and Social Inclusion (GEDSI).** This crosscutting theme helps to address the universal issue on the marginalization of women and girls, persons with disabilities, older persons, and other vulnerable groups. By having this as a crosscutting theme, their experiences and needs are considered to ensure equal access and inclusion for all from the perspectives and responsibilities of both driver and passenger. The following are some examples of GEDSI considerations that can be integrated into the training modules:

- (i) cover capabilities and features that maintain a safe environment for vulnerable groups, including women, the elderly, young persons, and persons with disabilities;
- (ii) cover ways to engage different user groups, including the elderly and young passengers; and
- (iii) allow training that is suitable to promote qualified bus drivers, regardless of gender.

**Sustainability.** This crosscutting theme addresses the concern on ensuring the quality of bus driving skills over the long term. The theme centers on maintaining continuous upskilling and training to prevent complacency. The following are some examples that need to be achieved from the training modules:

- (i) ensure driver skills and capabilities in technology evolution, e.g., driving and maintaining an electric bus, adapting to other future-proofing technologies such as passenger management system, service management system, payment, and ticketing system, etc.;
- (ii) ensure driver skills and attitudes that will help to promote ridership increase in the future, so as to potentially reduce private vehicle use, which means providing passenger convenience and service reliability; and
- (iii) ensure an environment-friendly bus driver training and bus services that can be applicable not only to Davao, but also nationwide.

**Health and Safety.** This crosscutting theme addresses the concern on maintaining health and safety as a top priority, not only as part of the modules to be taught to drivers, but also in all aspects of the program, including during the delivery of the training.

The training vendor must consider these three crosscutting themes as an essential part of the design of the training modules and in the way that bus drivers will access the training modules. Table 3 shows the core training themes and the respective sub-themes and how these intersect with the crosscutting themes.



**Table 3: Connection between Core and Crosscutting Themes**

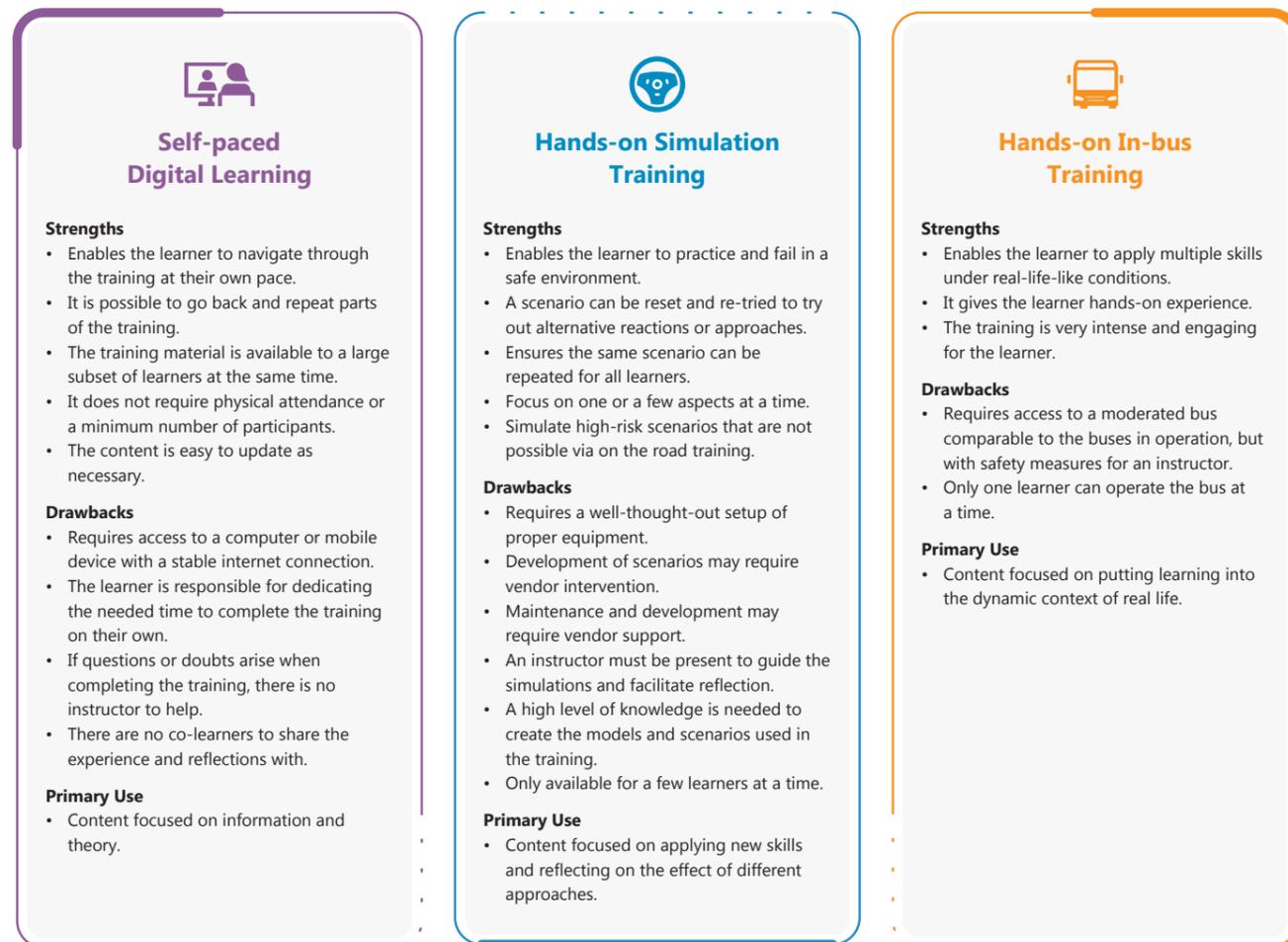
Safety and Core	Crosscutting Themes	Functionalities and Skills	Crosscutting Themes	Accessibility	Crosscutting Themes	Transition to the HPBS	Crosscutting Themes	Sustainability	Crosscutting Themes
Highway/Road traffic safety regulations	• H&S	Fare, ticketing, and payment system operation	• SU • GEDSI	Aiding people with physical disabilities	• GEDSI • SU • H&S	An enriching experience	• GEDSI • SU	Environment-friendly driving	• GEDSI • SU
Driving techniques	• GEDSI • H&S • SU	Passenger management driving techniques	• GEDSI • SU • H&S	How to interact and assist people with invisible disabilities	• GEDSI • SU • H&S	Code of conduct (driver management)	• GEDSI • SU • H&S		
Pre-driving setup	• GEDSI • H&S	Emergency/Incident management	• GEDSI • SU • H&S	Passenger interaction and customer service	• GEDSI • SU • H&S	Traffic priority and operations	• H&S		
Ticketing and payment operation	• SU • GEDSI	Bus operation and control system coordination	• SU	Road familiarization		The difference between responsibilities	• H&S		
Road familiarization	• H&S	Revenue collection management	• SU	Making the bus accessible in all conditions for all passengers	• GEDSI • SU	Information about the transition for the partner			
Driver wellness and medical condition compliance	• GEDSI • H&S								
Vehicle road worthiness	• H&S								
Passenger handling	• GEDSI • SU • H&S								
Passenger management	• GEDSI • SU								
Emergency/Incident management	• GEDSI • H&S								

GEDSI = gender equality, disability, and social inclusion; H&S = health and safety; SU = sustainability.  
Source: Ramboll.

### 6.3 CHOOSING THE RIGHT FORMAT

The content of the modules also depends on the delivery of the modules. Figure 9 presents the types of format a module can be, and specifically which kinds of modules or content should be taken as digital learning, via simulators, or on-road/in-bus training. The information in the figure are initial thoughts for the training framework and are not the final types of modules nor the final formats. The modules described and the suggested formats are subject to continuous development and could be changed by the training vendor, relevant government agencies, other stakeholders, and if necessary, any technical consultant engaged to assist in aligning this report and its implementation.

Figure 9: Considerations for Choosing the Format



Source: Ramboll.

### 6.4 OVERVIEW OF SUGGESTED TRAINING MODULES

From the themes and formats, this section outlines the suggested content for the training modules (Table 4), which can be further discussed with the training vendor and other relevant stakeholders. The training vendor is expected to develop the final curriculum and design all content for the training modules; as such, all the descriptions in this framework are at a high level at this stage. Details will come in place together with the training vendor.

Alongside the suggested training modules in Table 4, the entity designated as the lead responsible for each module is identified. This is based on the engagement activities. For more information on the role, please refer to the *D5 Operations and Maintenance Concept Report*.

The training vendor should include the learning journey concept into the design of the training modules. This means that all modules should have an element of Assess, Engage, Explore, Apply, and Reflect, and have included feasible measures to ensure Impact (see Chapter 5 for detailed explanations). Including these steps from the learning journey concept will ensure that (i) the bus driver’s knowledge is at a passable level, through assessments under “Assess”; (ii) that the training is engaging and motivational, by including “Engage”; (iii) that exploration is a natural part of the training design, through “Explore”; and, (iv) an element of application and reflections is added to the training in order to get it embedded into the driver’s daily life, through “Apply and Reflect”. Including a focus on “Impact” will ensure that the training is meaningful and has a lasting mark on the driver and the city at large in desired ways.

The training vendor should also consider and include the crosscutting themes in each of the training modules (Section 6.2). The crosscutting themes ensure that the training is inclusive, safe, and sustainable.

The suggested training modules in the following table also indicate the format that should be primarily used, based on the considerations outlined in Section 6.3. For more details on the module content, see Appendix 4.

Table 4: Suggested Training Modules and Focus

Module Number	Tentative Module Title	Lead	Module Focus	Topics to be Included	Primary Delivery Format	HPBS Essential Module <sup>a</sup>
Module 1-1	<b>An Enriching Experience</b>	Government – Davao Bus	To prime the mind and heart of the bus driver—to show that the HPBS will benefit them, their families, and the city.	<ul style="list-style-type: none"> <li>• Introduction to HPBS</li> <li>• Key pillars of HPBS convenience</li> <li>• Providing service reliability</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> </ul>	Yes
Module 1-2	<b>Roles and Responsibilities as an HPBS driver</b>	Government – Davao Bus	To clarify the difference in responsibilities when drivers transition from jeepney driver to bus driver. To explain, for example, that they no longer need to handle the mechanics of the bus.	<ul style="list-style-type: none"> <li>• Introduction to roles and responsibilities as a driver of the HPBS or the Davao Public Transport Modernization Project</li> <li>• Main touchpoints as a driver</li> <li>• Familiarization on performance-based incentives and how it works</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> </ul>	Yes
Module 2-1	<b>Code of Conduct</b>	Government – Davao Bus	To inform drivers of the rules they need to follow as a representative for the HPBS and the guidelines that will help them navigate situations in their work.	<ul style="list-style-type: none"> <li>• Introduction to HPBS official code of conduct</li> <li>• Awareness of relevant acts and regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> </ul>	Yes
Module 2-2	<b>Information about the Transition for the Driver's Partner</b>	Government – Davao Bus	To help the spouse or partner understand the transition from jeepney driver to bus driver and provide tools to navigate the change. It should include, for example, differences in payment schemes and a template for monthly budgeting. Once completed, the spouse or partner should be able to explain what the transition entails.	<ul style="list-style-type: none"> <li>• Overview of main changes and benefits related to the transition</li> <li>• Introduction to potential income structures</li> <li>• Basics of budgeting and financial literacy</li> <li>• Expected professionalism</li> <li>• Structured workplans and shifts</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> </ul>	Yes
Module 3	<b>Overall Changes to Traffic Priority for the HPBS</b>	LTO	To inform all drivers of the traffic priority bus lanes and how the HPBS operation is setup. It should introduce the driver to all new aspects of the HPBS operations.	<ul style="list-style-type: none"> <li>• Basic understanding of how traffic prioritization logic works</li> <li>• Enable public acceptance towards HPBS as a new system</li> <li>• Considerations for safe driving</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	Yes

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Table 4: continued

Module Number	Tentative Module Title	Lead	Module Focus	Topics to be Included	Primary Delivery Format	HPBS Essential Module <sup>a</sup>
Module 4-1	<b>Pre- and Post-trip Inspection</b>	TESDA	To inform all drivers of the pre-trip, post-trip inspection, and general maintenance of the bus.	<ul style="list-style-type: none"> <li>• Overview of daily handover processes</li> <li>• Introduction to maintenance schedule</li> <li>• Risk assessment, how to identify safety critical findings</li> <li>• Systematic reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	No
Module 4-2	<b>Roadworthiness</b>	TESDA	To ensure that the vehicle is worthy for the road. It is not the bus driver's responsibility to fix anything mechanical in the bus, but it is on them to ensure that the bus is ready for the road and report it if not.	<ul style="list-style-type: none"> <li>• Daily handover process related to roadworthiness</li> <li>• Communications with depot supervision</li> <li>• Maintenance schedule</li> <li>• Operating electric and automatic buses</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	No
Module 5	<b>Road Safety and Traffic Safety Regulations</b>	LTO	To inform all drivers of the specific traffic safety regulations for their potential routes and ensuring that all bus drivers have a sufficient knowledge of the traffic regulations for city and highway driving.	<ul style="list-style-type: none"> <li>• Traffic rules</li> <li>• Safety procedures</li> <li>• Good manners in driving</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> </ul>	Yes
Module 6	<b>Driving Techniques</b>	TESDA	To inform and train all drivers on driving techniques, primarily how they turn, reverse, park, change lanes, cross, diverge, and merge in a safe way.	<ul style="list-style-type: none"> <li>• Practical bus handling</li> <li>• Driving techniques for different conditions</li> <li>• Good manners in driving, driver duties, and responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• Simulator</li> <li>• In-bus</li> </ul>	No
Module 7	<b>Bus Operation and Control System</b>	Operator	To build drivers' understanding of all aspects of the bus operation, related to the bus driver role, and how they use the control system within the bus, as well as communication functions within the bus.	<ul style="list-style-type: none"> <li>• Familiarization with bus control system</li> <li>• Information and communication dissemination</li> <li>• IT operation integration</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	No

Continued on next page.

Table 4: continued

Module Number	Tentative Module Title	Lead	Module Focus	Topics to be Included	Primary Delivery Format	HPBS Essential Module <sup>a</sup>
Module 8-1	<b>Fare, Ticketing, and Payment System</b>	Operator	To get familiarized with the new payment system, which includes using a demo machine with fictional customers to receive payment and give returns. Should also include a focus on overall operations.	<ul style="list-style-type: none"> <li>• Overview of types of fares and tickets</li> <li>• Operation of the payment system</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• In-bus</li> </ul>	No
Module 8-2	<b>Revenue Collection Management</b>	Operator	To understand the driver's role in revenue collection management. It will focus on how to ensure everything is ready for the revenue collector.	<ul style="list-style-type: none"> <li>• Understanding of the revenue collection system/process</li> <li>• Responsibilities of the driver</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• In-bus</li> </ul>	No
Module 9	<b>Passenger Handling (Standard Operation)</b>	Shared Operator and Government	To build understanding of the functionalities within the bus that can help the bus driver to handle boarding and alighting of all types of passengers.	<ul style="list-style-type: none"> <li>• Boarding and descending the bus</li> <li>• Driver's role and responsibilities</li> <li>• Information boards on board</li> <li>• Protocols for prohibited goods in the bus</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	Yes
Module 10	<b>Emergency and Incident Management</b>	TESDA	To inform on how to handle an emergency involving the bus or passengers as well as incident management.	<ul style="list-style-type: none"> <li>• Introduction to emergency protocols and incident protocols</li> <li>• Awareness and execution of emergency plans</li> <li>• Conducting first aid and using an AED</li> <li>• Incident response</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	Yes
Module 11	<b>Passenger Handling (Passengers with Special Needs)</b>	Shared Operator and Government	To build understanding of the functionalities within the bus that can help the bus driver assist passengers with special needs, particularly persons with disabilities.	<ul style="list-style-type: none"> <li>• Introduction to gender and PWD sensitivity</li> <li>• Accessibility features on the bus</li> <li>• Hospitality education</li> <li>• Helping PWD in case of emergency</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	Yes
Module 12	<b>Passenger Interaction and Customer Service</b>	Shared Operator/ Davao Bus	To build competencies to interact with all passengers and provide good customer service, including ensuring that specific groups such as senior persons or pregnant women be given priority.	<ul style="list-style-type: none"> <li>• Cornerstones of good customer service</li> <li>• Procedures for assessing service levels</li> <li>• Work ethics</li> <li>• Dealing with passenger feedback</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> </ul>	No

Continued on next page.

Table 4: continued

Module Number	Tentative Module Title	Lead	Module Focus	Topics to be Included	Primary Delivery Format	HPBS Essential Module <sup>a</sup>
Module 13	<b>Driver Wellness</b>	Government – Davao Bus	To inform drivers of the importance of driver's wellness and medical condition compliance. It includes the code of conduct for all drivers, including zero tolerance for drugs and alcohol, as well as how a driver handles fatigue and breaks.	<ul style="list-style-type: none"> <li>• Introduction to city health protocols and compliance within these</li> <li>• Overview of rights requirements related to driver wellness</li> <li>• Introduction to mental and physical health</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> </ul>	Yes
Module 14	<b>Road Familiarization</b>	Shared Operator and Government	To gain road familiarization with the possible routes a bus driver will be assigned to. It should have a primary focus on difficult parts of the road and safety considerations.	<ul style="list-style-type: none"> <li>• Familiarization of specific route(s) for the new bus system</li> <li>• Techniques applied to the specific route(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	No
Module 15	<b>Environmental Driving</b>	Operator	To build skills that enable the driver to drive more environmentally friendly and why this is important to focus on for Davao City. This could include a link between driving behavior and fuel consumption.	<ul style="list-style-type: none"> <li>• Ideal driving habits</li> <li>• Technology adaptation and innovation</li> <li>• Impact of preventive maintenance schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Digital learning</li> <li>• Simulator</li> <li>• In-bus</li> </ul>	No

AED = automated external defibrillator, HPBS = High Priority Bus System, LTO = Land Transportation Office, PWD = person with disability, TESDA = Technical Education and Skills Development Authority.

<sup>a</sup> The HPBS-Essential module will be elaborated in Chapter 7 on the training for driver candidates with different experiences.

Source: Ramboll.

### 6.5 MODULES CONVERTED INTO LEARNING BUNDLES

While modules are individual entities that need to be completed one at a time, logic and progression are considered across the modules. As a step towards the learning journey, modules that are in close relation to each other are grouped into learning bundles; although a learning bundle could also contain only one module (Table 5). One learning bundle should be completed before moving on to the next.

**Table 5: Suggested Learning Bundles**

Transition to the HPBS	Bus Driving (Part I)	Bus Operation	Passenger Handling (Part I)	Bus Driving (Part II)	Passenger Handling (Part II)	Driver Wellness	Bus Driving (Part III)
Transition to the HPBS	Safety and Core Competencies	Functionalities and Skills	Safety and Core Competencies	Safety and Core Competencies	Safety and Core Competencies Accessibility	Safety and Core Competencies	Safety and Core Competencies Sustainability
M 1-1: An Enriching Experience	M 4-1: Pre- and Post-trip Inspection	M 7: Bus Operation and Control System	M 9: Passenger Handling (Standard Operation)	M 10: Emergency and Incident Management	M 11: Passenger Handling (Passengers with Special Needs)	M13: Driver Wellness	M 14: Road Familiarization
M 1-2: Roles and Responsibilities as an HPBS Driver	M 4-2: Roadworthiness	M 8-1: Fare, Ticketing, and Payment System			M 12: Passenger Interaction and Customer Service		M 15: Environmental Driving
M 2-1: Code of Conduct	M 5: Road Safety and Traffic Safety Regulations	M 8-2: Revenue Collection Management					
M 2-2: Information about the Transition for the Driver's Partner	M 6: Driving Techniques						
M 3: Overall Changes to Traffic Priority for the HPBS							

M = module.  
Source: Ramboll.

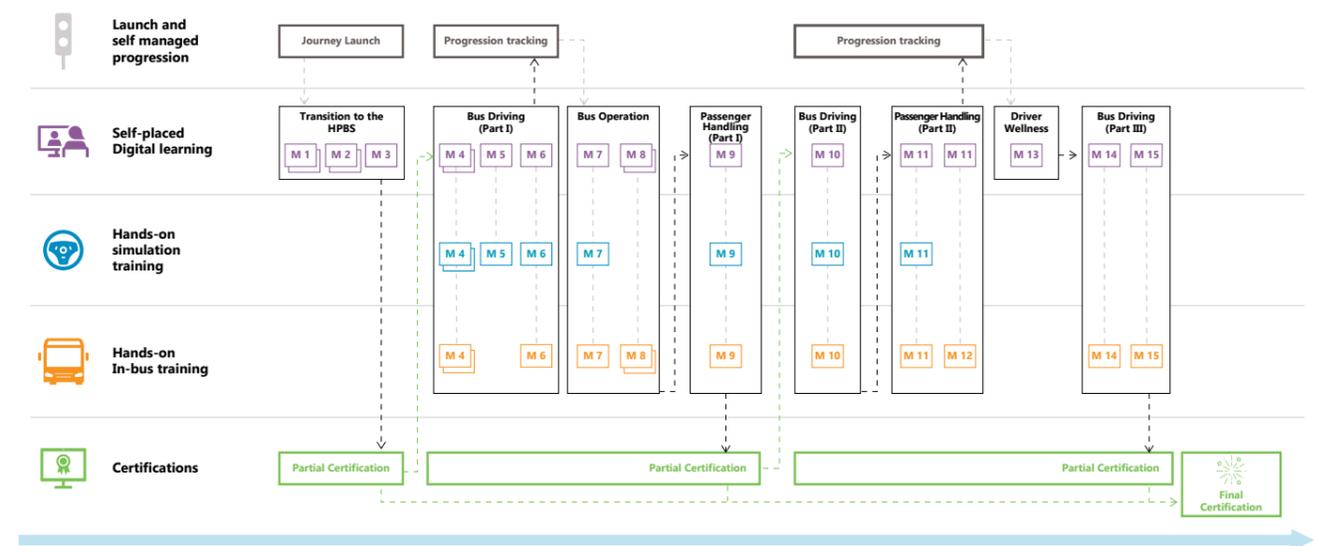
All the modules will be visualized in a learning journey to illustrate when the learner will take and complete the different aspects of their learning.

### 6.6 VISUALIZATION OF THE FULL LEARNING JOURNEY FOR NEW BUS DRIVERS

Figure 10 shows the overall learning journey with the previously explained learning bundles. New bus drivers will be asked to track their own progress throughout their journey and after completing specific bundles they will receive certifications of completion. The bundles are arranged in a way that the learner will gradually gain skills, from hard skills (e.g., driving and operating the bus) to soft skills (e.g., passenger handling and driver wellness), and in an order that has similar bundles close together in the learning journey.

Drivers will receive a completion certificate at the end of the HPBS bus driving course. Each of the touchdowns under the track certifications should include an assessment that will determine if the driver has passed and completed the previous bundles—a more thought through assessment is needed but is out of scope for this training framework. An assessment approach has, however, been suggested in the final sections, as part of both the different learning journey descriptions and the way the training vendor must work with Impact (Chapters 7, 8, and 9).

**Figure 10: Full Learning Journey for New HPBS Drivers**



M = module.  
Source: Ramboll.

# 7 FUTURE LEARNING JOURNEY TO ACCOMMODATE DRIVER CANDIDATES WITH DIFFERENT EXPERIENCES



The learning journey is designed to accommodate a driver with no experience driving public buses. Currently, there are no fixed route bus networks in the Philippines similar to HPBS. Therefore, it is unlikely that drivers with adequate and relevant experience will apply as HPBS drivers.

In addition, since the learning journey will likely include regulatory certification of bus drivers under a new license class, it might be advisable that the learning journey in its entirety is applied to all prospective bus drivers at the onset of the project. This will ensure a consistent level of experience across bus drivers and will avoid potential legal issues with exempting drivers from prerequisites required for obtaining a government-issued license.

Adoption of an adapted learning journey for experienced bus drivers may be relevant once the HPBS achieves a steady state of operations. On the other hand, such adoption may be applicable when certain operator(s) prefer to perform a series of bus driving training in-house, where such skills may be able to substitute certain modules upon assessment.

## 7.1 DEFINITION OF AN EXPERIENCED BUS DRIVER

While the full learning journey is designed to meet the learning needs of jeepney drivers transitioning to driving HPBS, people with different backgrounds and bus driving experience may also choose to transition.

In this framework, an experienced bus driver is defined *as one who has a bus driver license and has been employed as a bus driver in another capacity than under the HPBS, or one who has undergone a certain series of bus driver training elsewhere but not necessarily adopting the HPBS Training Framework.*

For instance, such driver could be a bus driver who has driven commercial buses or a similar arrangement, or a bus driver that has undergone series of in-house training provided by a bus operator.

## 7.2 IDENTIFICATION OF HPBS-ESSENTIAL MODULES

To accommodate a suitable training program for experienced bus drivers, a series of adapted learning journeys are outlined in this training framework, containing a subset of the full learning journey described in Chapter 6. The adapted learning journeys are for consideration only and must be integrated with the regulatory framework surrounding the certification of bus drivers, including licensing and other HPBS-specific requirements.

An initial screening of which (sub)modules are essential for the level of operation and service targeted by the HPBS has been conducted based on the following:

- What elements are **essential for the HBPS operation** to set the standard quality of bus service in Davao City? (e.g., passenger handling, understanding of driver's roles and responsibilities in elevating the service standards)
- What is essential for providing **coherent and safe operation**? (e.g., proper code of conduct, knowledge and skills for emergency management, and knowledge of driver wellness)
- What is essential for contributing to **a livable city**? (e.g., environmentally friendly driving and handling passengers with special needs)

The screened (sub)modules are identified as “HPBS-Essential” modules and these have been further assessed to determine which learning format best conveys the lessons for experienced drivers using the considerations outlined in Section 6.3. Identification of the HPBS-Essential modules shall be subject to continual review, as the current identification also considers the adaptation and readiness of delivering certain modules. For instance, certain modules which are dependent on the readiness of the system (e.g., ticketing system, control system, etc), their associated training modules are classified as non HPBS-Essential until such systems are confirmed and the regulator is ready to establish training for these modules. Otherwise, these modules can be considered to be delivered by the bus operator.

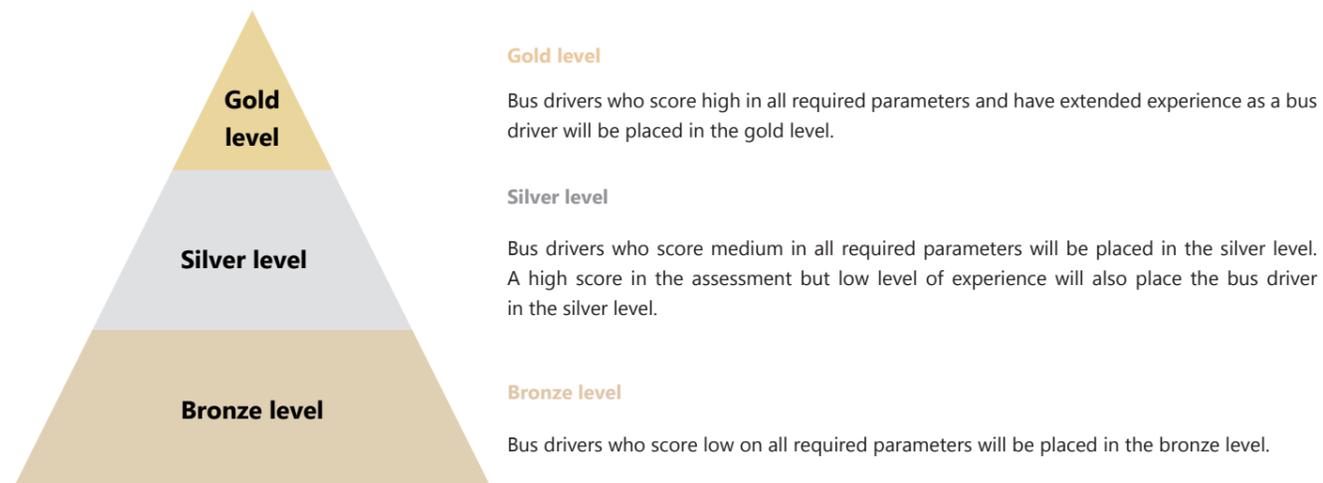
The training vendor must reassess when the modules have been fully developed; but for now, these will form the basis for the learning journey examples presented in the following sections.

Appendix 5 contains an overview of the HPBS-Essential (sub)modules that have gone through the initial screening.

### 7.3 BRONZE, SILVER, AND GOLD LEVEL TRAINING

In the application to become an HPBS driver, the bus driver needs to state if they have previous experience as a bus driver and include valid documentation for their bus driver license. If they cannot provide the driver’s license required to operate HPBS, they will need to take the full learning journey inclusive of all requirements for obtaining a bus driver’s license. If they can produce a driver’s license required for driving under the HPBS, they will then complete an assessment that will place the driver in one of three knowledge levels: *bronze*, *silver*, and *gold* (Figure 11).

Figure 11: Learning Journey for Experienced Bus Drivers



Source: Ramboll.

Depending on the level the experienced bus driver is placed in, different modules will be allocated for completion.

**Bronze Level.** The bronze learning journey is based on all the modules of the full learning journey except those in the first learning bundle (Transition to the HPBS), which is focused on the transition from being a jeepney driver, and as such is not relevant for non-jeepney experienced drivers. However, modules from the first learning bundle that explain the overall transition in Davao City to the HPBS and the fixed route transit system remain, since these are relevant for all bus drivers applying to the HPBS.

Modules beyond the HPBS-Essential modules that will be included in the bronze learning journey depends on the outcome of the assessment taken; but these are expected to include:

- (i) Pre- and Post-trip Inspection,
- (ii) Roadworthiness,
- (iii) Road Safety and Traffic Safety Regulations,
- (iv) Driving Techniques, and
- (v) Revenue Collection Management.

**Silver Level.** The silver learning journey will typically consist of a smaller subset of modules beyond the HPBS-Essential modules, depending on the initial assessment and the bus driver experience. The journey can have modules that in the full learning journey comes in more formats but will only be available for the silver level bus driver in either in-bus, simulator, or digital training formats.

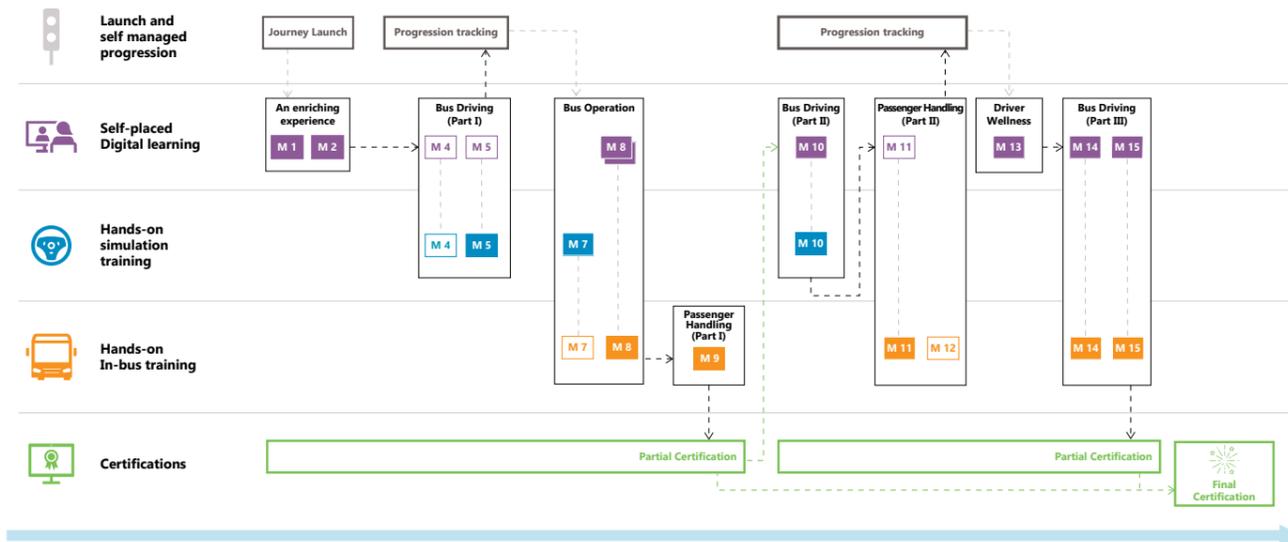
**Gold Level.** The gold learning journey will mainly consist of the HPBS-Essential modules, depending on the initial assessment and the bus driver experience. Furthermore, the gold level learning journey can have modules that in the original learning journey comes in more formats but will only be available for the gold level bus driver in one format.

The following sections show examples of a silver level learning journey and a gold level learning journey.

### 7.4 EXAMPLE OF A SILVER LEVEL LEARNING JOURNEY

The assessment taken by the bus driver in this example shows that the bus driver scored high in the Bus Driving (Part II) and Passenger Handling (Part I) learning bundles, which therefore have been taken out of the learning journey apart from the HPBS-Essential modules (Figure 12). In addition, the driver received a medium score in the following bundles: Bus Driving (Part I), Bus Operation, and Passenger Handling (Part II). Under these bundles, some modules will be taken out, while the modules retained are only offered in some formats.

Figure 12: Visualization of a Silver Level Learning Journey Example

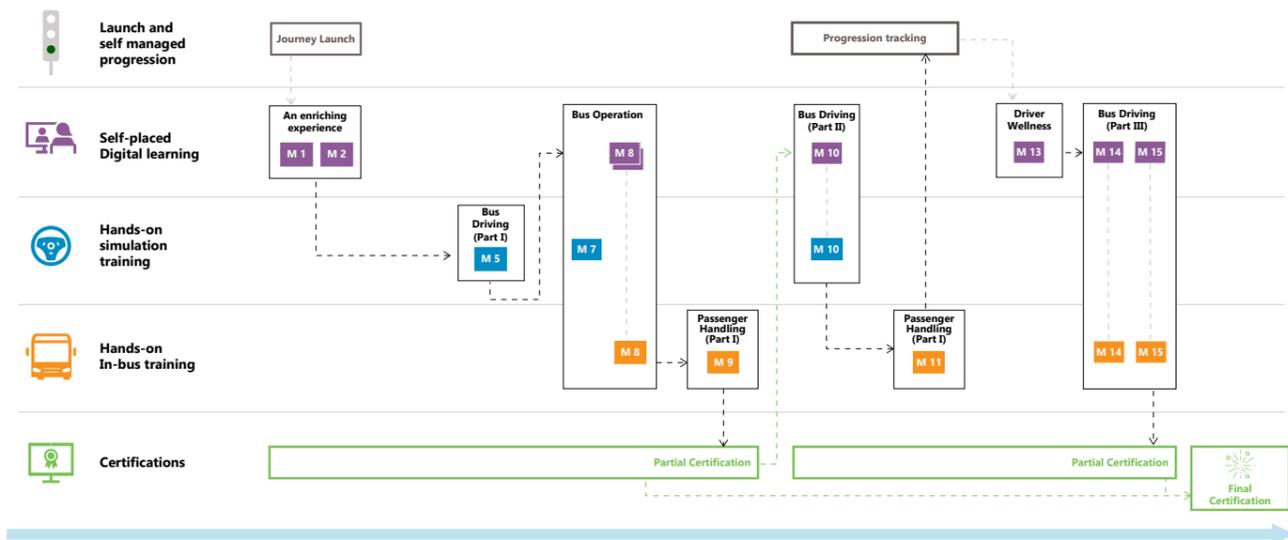


M = module.  
 Note: Modules in full color are HPBS-Essential modules.  
 Source: Ramboll.

### 7.5 EXAMPLE OF A GOLD LEVEL LEARNING JOURNEY

The assessment taken by the bus driver in this example shows that the bus driver scored high on all bundles and is therefore only required to take the HPBS-Essential modules to complete the gold level (Figure 13). These modules help ensure that even a highly experienced bus driver has the HPBS-Essential knowledge and competencies related to the procedures and systems introduced with the HPBS.

Figure 13: Visualization of a Gold Level Learning Journey Example



M = module.  
 Note: Modules in full color are HPBS-essential modules.  
 Source: Ramboll.



# 8 LEARNING JOURNEY FOR RE-CERTIFICATION



## 8.1 EDUCATIONAL REQUIREMENTS

To maintain the quality of driving skills through years of operations, it is crucial to ensure continuous upskilling and training to prevent complacency. The following options help to maintain this requirement:

- (i) Policies and regulations in enforcing the driving license validity that are based on certain regular assessments. For instance, a bus driving license renewal shall require a certain form of assessment that may include theory-based and driving skills test for every certain period. This is implemented in many countries in the world.
- (ii) The second option is the policy and regulation of undertaking certain hours of annual training as part of licensing requirement. This is currently practiced in the United States, where annual in-service training is required to ensure the driving authorization does not lapse.
- (iii) Other forms to maintain continual driving skills and knowledge is a refresher training program, which allows drivers that have not been driving for a certain period to undertake certain critical modules to refresh their driving skills and knowledge.

The selected option will need to be integrated with the regulatory framework established for acquiring a driver's license and any other regulatory contexts applicable to the HPBS (local requirements, operator requirements, etc.).

## 8.2 DEFINITION OF RE-CERTIFICATION

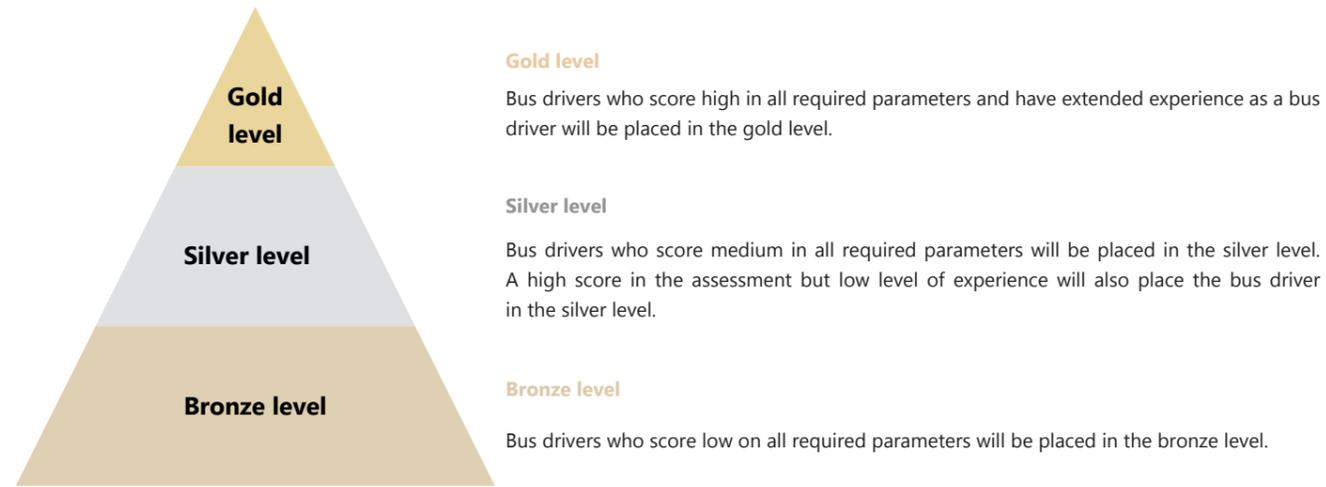
Re-certification for bus drivers under the HPBS should focus on maintaining the skills the bus drivers learned when they attended the driving course. Therefore, a re-certification program should not be pre-defined but instead be based on assessments. The bus driver will take a skills assessment prior to their re-certification, which will determine the skills and competencies that need improvement and more training. The re-certification will then be tailored to their specific needs and lift the competencies and skills where they have a low score and let them skip modules related to competencies and skills where they have a high score.

If there are any updates to modules within the five themes or addition to the driving course that the driver did not participate in, then these should automatically be added to the driver's personalized learning journey.

**Assessment.** As with the experienced bus driver learning journey, the assessments will place the driver in one of three knowledge levels: *bronze*, *silver*, and *gold* (Figure 14). The assessments will be conducted two ways, with inspiration from Sweden:

- (i) Assessment will be done by a mentor or coach who will evaluate the bus driver based on a written assessment, and depending on their placement level, the same mentor will monitor the bus driver's progress afterward.
- (ii) Assessment will be done by the passengers through ongoing surveys. Access to the surveys will be available on the bus through QR codes, in which the passenger can score the bus drivers on the route. This will accumulate points for each learning bundle. If Assessment 2 is adopted, it may be required to integrate with the operator's responsibilities to ensure that a feedback mechanism is provided to riders and regular collection and summary of data is conducted.

Figure 14: Assessment Levels for Re-certification



Source: Ramboll.

**Bronze Level.** Bus drivers who score low on six or more bundles will be placed in the bronze level. Bronze level re-certification will require the driver to complete most of the driving course again to heighten their skill level. It will also entail supervision from a mentor to ensure that the competence level is maintained.

**Silver Level.** Bus drivers who score low on two to five bundles will be placed in the silver level. Silver level will require the driver to retake the bundles they scored low on and demonstrate an improvement of their skills through a passenger or mentor assessment.

**Gold Level.** Bus drivers who score low on one bundle will be placed in the gold level. The only requirement is an assessment from a mentor who will supervise the bus driver during working hours.



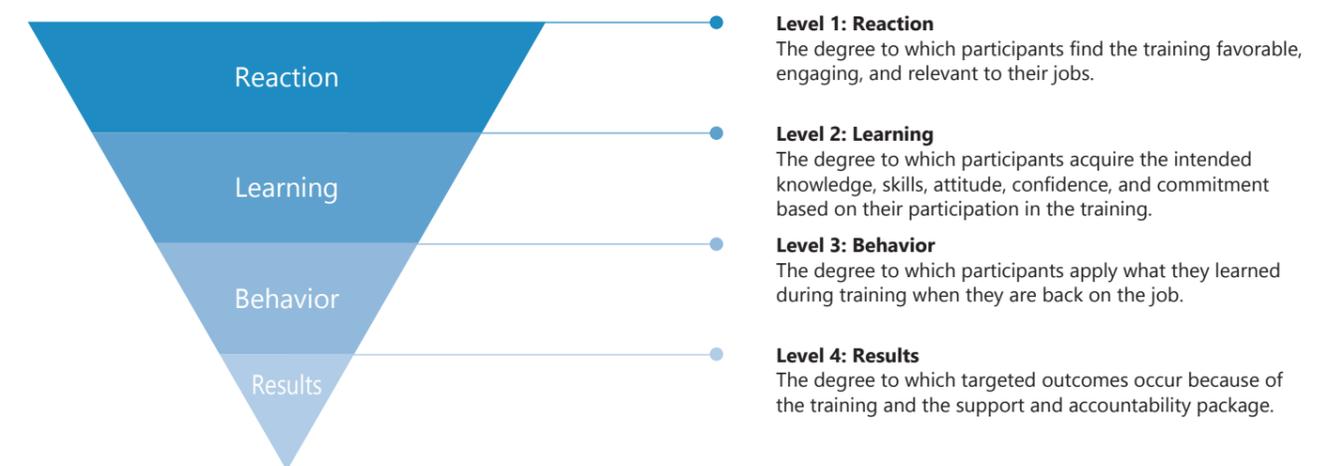
# 9 MEASURING IMPACT



## 9.1 THE KIRKPATRICK ASSESSMENT MODEL

The Kirkpatrick Assessment Model is an assessment tool commonly used to evaluate the effect of a training program on four levels: (i) Reaction, (ii) Learning, (iii) Behavior, and (iv) Results (Figure 15). The approach in the model is flexible and adaptable across industries, which makes it a great approach to use as the evaluation method for a training program like the HPBS bus driver training program. The program could potentially have multiple pathways into the training, depending on the level the drivers are placed in. Therefore, a flexible assessment that can be altered to fit the different needs is relevant. The key to using the model effectively is to make training evaluation an integral part of the training design from the beginning. By working backwards on the four levels of the Kirkpatrick Model, training initiatives that are effective and impactful can be developed and directly tied to measurable outcomes.

Figure 15: Kirkpatrick Assessment Model



Source: Adapted from Kirkpatrick Partners. <https://www.kirkpatrickpartners.com/the-kirkpatrick-model/>.

The Kirkpatrick Assessment Model is used to ensure that measurements are included in the design of the training framework, including an evaluation approach during and after the bus driver has completed the HPBS bus driver training program. These should be included from the start of the design process, as well as measurement points in the training to ensure evaluation on all four levels, when applicable.

The training framework includes assessment methods that will assess the training's impact both on the bus drivers and on an institutional level. Data from all previous levels can be used as a foundation for the following levels' analysis. As a result, each subsequent level provides an even more accurate measurement of the usefulness of the training program, yet simultaneously calls for a significantly more time-consuming and demanding evaluation.

**Level 1 – Reaction assessment.** The objective of this level is to evaluate how the individuals react to the training, e.g., did they like the training they just completed, did they like the format of the training, and did it meet their expectations and needs? Assessment done at this level is used to improve the program and does not necessarily establish if the desired learning outcome has been met. For the HPBS training, examples of methods that could be used to conduct assessments at Level 1 are feedback forms, post-training questionnaires, and interviews.

**Level 2 – Learning assessment.** Evaluations at this level should showcase which competencies and skills the learner has acquired, and if any development in their expertise, knowledge, or mindset has occurred. Typical methods used in Level 2 vary from informal to formal tests and from self-assessment to team assessment. A pre-test (to assess knowledge level before the start of program) and a post-test (to assess knowledge level at the end of the program) should be created for the training program. The pre- and post-tests will help uncover how much the participants have understood. For the HPBS training, examples of methods that could be used to conduct assessments at Level 2 are pre- and post-tests, exams, interviews, and observations by peers and instructors.

**Level 3 – Behavior assessment.** This level analyzes the differences in the learner’s behavior at work after completing the program. Assessing the change makes it possible to figure out if the knowledge, mindset, or skills the program taught are being used as an active part of the job. When assessing a jeepney driver’s transition to becoming a bus driver, assessments at this level should focus more on whether knowledge was retained and if the lessons from the program are being used in the daily work. A job assessment should be used to determine whether the learning is retained and applied, which should take place around 3–6 months after the driver completes the bus driving course. For the HPBS training, examples of methods that could be used to conduct assessments at this level include observations, interviews, questionnaires (comparable to previous questionnaires), 360-degree feedback, and longer supervisions or mentoring.

**Level 4 – Results assessment.** Level 4 determines the overall success of the training by measuring factors on an institutional level, such as lowered spending on training, improved quality of the “product” (in this case the bus driver), and a safer working environment (for both drivers and passengers). Level 4 is the most difficult level to perform assessments on since it is challenging to tie the training directly to financial success or improvements. Doing Level 4 assessments for the HPBS training program should focus on: (i) the benefits the drivers have gained from the transition; (ii) the smaller carbon dioxide footprint the new HPBS buses have, as well as other relevant environmental benefits; (iii) the passengers’ experience with the bus drivers; and, (iv) having the HPBS implemented in Davao City and the overall benefits and impact the HPBS have had in the city. For the HPBS training, examples of methods that could be used to conduct such assessments include the PESTEL framework, yearly evaluations of bus drivers by passengers, and a yearly evaluation workshop with key stakeholders to evaluate key training targets.



# 10 IMPLEMENTATION OF THE HPBS TRAINING FRAMEWORK

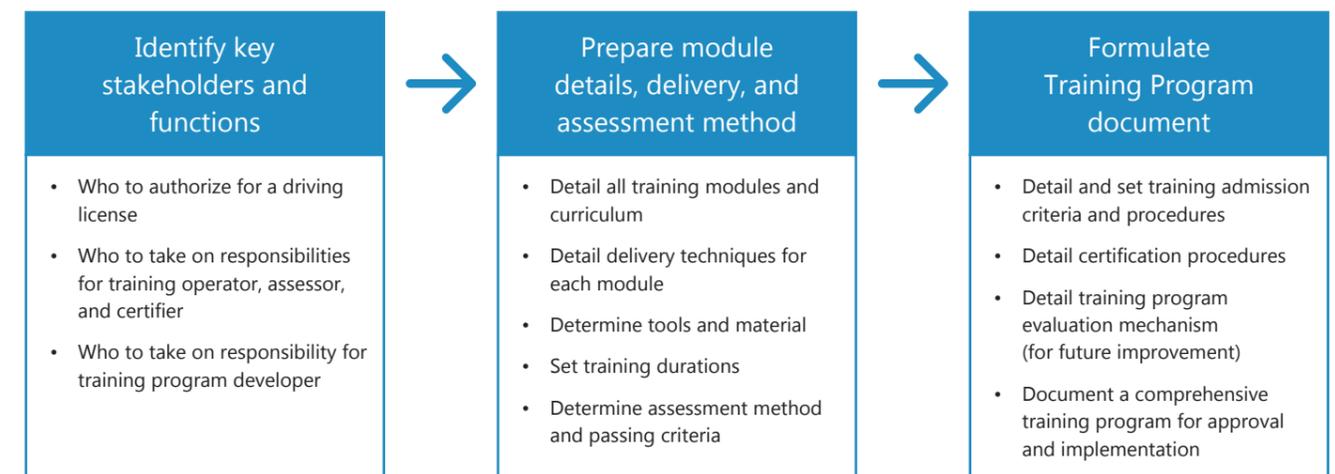


## 10.1 OVERVIEW

The following section provides guidance to implement this training framework document prior to delivery of the training. Information in this section is also discussed in the D5 report, *Operations and Maintenance Concept Report*.

As a next step, the selected training developer may use this document to get insights into what is expected for them to design and develop a modern training program for bus drivers under the HPBS. Based on the findings and conclusions in this document, and in the D5 report, the following diagram summarizes the next key implementation plan.

Figure 16: Implementation Plan for the Training Framework



LTFRB = Land Transportation Franchising and Regulatory Board, LTO = Land Transportation Office, TESDA = Technical Education and Skills Development Authority.

Source: Ramboll.

## 10.2 IDENTIFICATION OF KEY STAKEHOLDERS AND FUNCTIONS

Table 6 summarizes the roles of the training operator based on the *Operations and Maintenance Concept Report*.

**Table 6: Assessment of Training Operator Responsibility Role**

Timeline	Training Operation Role	Justification
<b>Short term</b> (2–3 years)	LTO, LTRFB, and TESDA—all together, the Authorities	<p>The main reason the Authorities will take on the training operation responsibility is due to the asset ownership of the training technology under the government.</p> <p>Prior to training delivery, a training program needs to be established. Two implementation options are proposed:</p> <ul style="list-style-type: none"> <li>• <b>Option 1:</b> LTO and TESDA will establish a training program based on this training framework and considering the current training programs of the LTO and/or TESDA.</li> <li>• <b>Option 2:</b> A training program vendor will be selected along with the training technology selection to assist the Authorities in establishing a new training program for the LTO to trial and to approve during the short term.</li> </ul>
<b>Medium term</b> (5–10 years)	<ul style="list-style-type: none"> <li>• The Authorities</li> <li>• LTO-accredited new private training provider</li> </ul>	<ul style="list-style-type: none"> <li>• Once the new training program is established and approved by LTO, the Authorities may pass on the training operation responsibility to a private training provider.</li> <li>• This to allow greater training capacity so as to accommodate the growing need for bus drivers in the future.</li> <li>• Tapping private training providers will take place with prior LTO accreditation.</li> <li>• The use of training technologies, including simulators and digital learning, can be through asset lease to private training providers or using private training providers' own assets.</li> </ul>
<b>Long term</b> (>10 years)	<ul style="list-style-type: none"> <li>• The Authorities</li> <li>• LTO-accredited new private training provider</li> <li>• Bus operator</li> </ul>	Similar to the medium term, but the bus operator (upon LTO accreditation) will be allowed to provide supplementary training for skills enhancement as set by individual bus operators.

LTRFB = Land Transportation Franchising and Regulatory Board, LTO = Land Transportation Office, TESDA = Technical Education and Skills Development Authority.

Source: Ramboll.

## 10.3 PREPARATION OF MODULE DETAILS, DELIVERY, AND ASSESSMENT METHOD

### 10.3.1 Module Preparation

Section 6.4 provides indicative learning modules that were identified as essential for training for HPBS bus drivers. In aligning with the local context, these modules have been compared against training modules or subjects required by LTO, TESDA, and LTRFB. The purpose is to ensure that these modules cover all mandatory training required for the bus service industry in Philippines.

Appendix 6 illustrates how the proposed learning modules cover all mandatory training modules or subjects required by LTO, TESDA, and LTRFB for training bus drivers in the Philippines. Furthermore, there are other learning modules proposed in this training framework to cover all other mandatory modules that are essential to improve bus driving quality, but are not covered in the existing training program in the country.

Based on the exercise of aligning the proposed learning modules with pre-existing learning modules and/or learning materials established by LTO, TESDA, and LTRFB, some existing training modules and materials can be recycled and utilized to be parts of the proposed learning modules for HPBS. This will be subject to further discussion among LTO, TESDA, and LTRFB in strategizing the formation of a land transport working group for HPBS and implementing the bus driving course for HPBS.

### 10.3.2 Module Detailing

To elaborate the modules, a list of learning outcomes needs to be set based on the focus and objectives for each module in Section 6.4. This list shall include detailed skills, capabilities, and knowledge that are expected from the learner after undertaking the module. The list of outcomes shall also include those areas linked to the crosscutting themes in Section 6.2.

Table 7 shows an example of developing learning outcomes, building on the focus and objectives defined in Section 6.4.

**Table 7: Example of Detailing a Module**

Theme and Module	Focus and Objective	Outcomes
<p><b>Theme:</b> Functionality and Skills</p> <p><b>Module:</b> Bus Operation and Control System Coordination</p>	<p><b>Focus:</b> To understand all aspects of the bus operation related to the bus driver role, and how to use the control system and communication functions within the bus.</p> <p><b>Objective:</b> The driver will demonstrate efficient skills in operating the bus, an understanding of their role, sufficient control over the system, and how to communicate with the operation center.</p>	<ul style="list-style-type: none"> <li>• Ability to operate communication system to contact the OCC</li> <li>• Ability to understand ongoing status of service schedule</li> <li>• Ability to navigate position, inform status, and receive commands from OCC</li> <li>• Ability to adjust service operation when possible</li> <li>• Others</li> </ul>

OCC = Operation Control Center.

Source: Ramboll.

### 10.3.3 Delivery Method

According to the learning journey concept in Chapter 6, the right format or delivery method should be established to ensure the appropriate learning journey processes are in place. Section 6.5 provides guidance how modules are to be grouped into several learning bundles, and Section 6.6 presents an overall visualization of the learning journey illustrating how the order of delivery of these learning bundles would result in the expected impact set in this document. While the above orders are set for new driver learners (to be indicated as bronze level), Section 7.4 and Section 7.5 illustrate how the orders of the learning journey can be tailored to serve the training needs of learners with different experience levels (to be indicated as silver and gold).

### 10.3.4 Training Tools and Duration

In leveraging the use of the technology, for efficient and higher quality of training, Section 6.3 indicates what will be the suitable additional technologies in utilizing simulator, digital learning, and/or in-bus training.

## 10.4 FORMULATION OF THE TRAINING PROGRAM DOCUMENT

### 10.4.1 Overview of Contents

The training program document should ensure and help align the expectations between the training developer (who owns the program), the trainers (in charge of specific parts of the program), and the learners (especially as they start the program). To attain this equal understanding among parties – particularly of the initial requirement prior to the training enrollment, after the training enrollment, and certain opportunities to maintain the training quality – the training program should at least address the following:

- (i) Criteria and procedures prior to admission and during enrollment of the training.
- (ii) Details of curriculum containing module details, delivery, and assessment methodologies.
- (iii) Criteria and procedures of learning certification.
- (iv) Mechanism of training program evaluation.

### 10.4.2 Training Program Legitimization

Upon completing the formulation of the training program document, and when necessary, upon several rounds of trials during a short-term period of implementing and evaluating the training program, an authority approval will be required to enforce the validity of the new training program to be used for a longer period and possibly in wider regions in the Philippines.

The LTO plays an important role in regulating the driver candidate's certification after completing the training program under the bus driving course, and prior to the issuance of the driving license. LTO has agreed to establish a new driver's license category for drivers of public transport buses. The learning journey described in this training framework contains elements of the training that would be considered a prerequisite for obtaining a license. LTO's adoption of the training framework is essential to supporting this new licensing scheme. Any subsequent requirements identified by LTO to obtain a driver's license for the bus driving class such as the HPBS should be integrated into this learning journey and training program.



# APPENDIX 1 – SUMMARY OF WORKSHOP 2: PRIVATE SECTOR AND INTEREST GROUPS



Source: Adobe Stock

Table A1.1: Workshop 2 – Group 1

1. Main purpose of the bus drivers	2. What vision do you have for Davao City's urban transport infra and how will it benefit Davao?	3. How should the system perform and improve the traveling experience for the people of Davao?	4. What are your concerns about the new system in the future?	5. In your opinion, what challenges will be faced with the new bus system?	6. What competencies do bus drivers need in the future?
To create a safe space for commuters they will patronize this mode of transportation	Integrate housing and real estate development with transport system for a transit-oriented development	It could accommodate the mass from all walks of life	Competition, and therefore, improvement of services through private sector participation	Financial sustainability	Ability to read and interpret information laid out in the dashboard (ITS component)
Ferry passengers from point A to point B	Safe, convenient, accessible and be able to deliver better travel experience	It will be more less chaotic in the streets	Acceptance that there will be changes in public transportation	Institutional management	18-meter articulate bus driving competency
To deliver/send passengers safely to their destination	A better, comfortable, and safe ride	Educate the public on the HPBS	Pedestrian infrastructure include green linear pathways towards bus stations/ Walkability towards stations/ stops	Adjustment to the new system, new mode of payments, and new mode of transportation	Customer service skills and ability to do basic everyday response
	It will be more convenient for the passengers	Give priority to persons with disability, elders, and pregnant women	Ignorance of people who are used to riding (PUJs)	Local workforce (existing academic offerings vs labor/ industry needs)	Well-disciplined and trained drivers
				Sustainability of the system and equipment – how well will it be managed?	
				How to adjust from the old culture of transportation, the income of the PUJ drivers	

Source: Ramboll.

**Table A1.2: Workshop 2 – Group 2**

1. Main purpose of the bus drivers	2. What vision do you have for Davao City's urban transport infra and how will it benefit Davao?	3. How should the system perform and improve the traveling experience for the people of Davao?	4. What are your concerns about the new system in the future?	5. In your opinion, what challenges will be faced with the new bus system?	6. What competencies do bus drivers need in the future?
Transporting passengers from one place to another safely and comfortably	Safe, efficient and comfortable public transport	HPBS to be effective should be on time (efficiency), consistent, safe, and comfortable	Sustainability	Acceptance	Obey and observe traffic rules
Transport passengers to different location and provide meaningful/excellent experience	Modern transport / international/world class infrastructure	Safe and timely	Inconsistencies	Confusion to new bus routes	Observe road health and safety procedure
Safely transport the passengers	Systematic transportation	On time/predictable bus arrival		Adjustment to the new payment methods and rates	Service-oriented
	It has good impact in the economic activity of Davao City			Shortage of new bus due to the unanticipated number of commuters	Customer service skilled
				Acceptance	Excellent understanding of the traffic rules
				Strikes	Excellent knowledge of routes
				Resistance	Cleanliness
				Adjustment to the cashless payment	Gender-responsive
					NC-III holder

Source: Ramboll.

**Table A1.3: Workshop 2 – Group 3**

1. Main purpose of the bus drivers	2. What vision do you have for Davao City's urban transport infra and how will it benefit Davao?	3. How should the system perform and improve the traveling experience for the people of Davao?	4. What are your concerns about the new system in the future?	5. In your opinion, what challenges will be faced with the new bus system?	6. What competencies do bus drivers need in the future?
Acquire new competencies	Safe, smart, accessible, reliable, comfortable	Efficient	Sustainability of the system	Acceptability of the people	Professionalism
Employment	Sustainable mobility options	Easy transfer	Fare payment system	Acceptability from the stakeholders	Professional bus driving experience
Ferry passengers from origin to destination	State-of-the-art public transport	More mobility options	System maintenance	Financial and operational and institutional sustainability of the system	Commuter's service quality orientation
Job opportunity	Better/complimenting system for all types of mobility	Efficient transport system	IT operation integration	Technological innovation	Professionalism
To bring passengers safely to/from their destination	Gender responsive/inclusive public transport	Safe, reliable, comfortable public transport	Information and communication dissemination	Technology adaptation	Technology transfer to the drivers
	Patterned after other smart cities that feature bus lanes, bike lanes, pedestrians, islands/greenery, fully digital/automatic	Climate resilient buses/public transport facilities	Needs that need to be properly communicated to the general public: (i) the benefits and (ii) how to use	Effects of climate change	
	Public transport drivers training institute	On-time transportation		Poor infrastructure and poor road infrastructure planning	
		Safe for everyone		User guide for riding public	
		Good compensation for drivers etc equates to happy drivers/good service			

Source: Ramboll.

# APPENDIX 2 – SUMMARY OF WORKSHOP 3: DRIVER GROUPS



## TIMELINE OF JEEPNEY DRIVERS' AVERAGE DAILY ROUTINE

Table A2.1: Average Daily Routine of Jeepney Drivers – Group 1

MORNING	MID-DAY	NIGHT
<p><i>Magkape, Ligo, Mamahaw, Check-up asite sa unit, tubig, washing sa unit. Byahe kutob alas dose.</i></p> <p>(Have coffee, take a bath, have breakfast, check the jeepney's oil, radiator coolant/ water, then wash the jeepney clean and tidy. Drive the route until 12 noon)</p>	<p><i>Pagka udto, lunch and relax. Magwalis sa sakyanan. agrapo sa bangko. After that, mamasahero para maka kuha na ug arkila.</i></p> <p>(At noon, will have lunch and relax for a while. Then sweep the jeepney's floor for dust/trash. Also includes wiping the passenger seats for sanitation. After that, drives again to transport passengers to reach the income quota to pay for the jeepney's day rental.)</p>	<p><i>Mo grahe at 8 pagka gabii, then mag washing, motubil, mohatud sa arkila sa tag-iya. After that, ibaba na ang trapal sa sakyanan. After than mo-uli na sa balay</i></p> <p>(Drives the jeepney route until 8:00 p.m. then wash/clean the unit. Have it fueled, usually the night before to be ready for the next day's routine. Pay the jeepney rental of the day to the owner/operator. Before going home, cover the jeepney's windows with roll-up canvas to prevent rainwater inside, in case it rains. Then go home bringing also the net income for the day.)</p>
<p><i>4:00 a.m. magluto ug kan-on, 5:00 a.m. maligo, magsu-ot ug uniform, 5:30 a.m. Mag cjeck sa oils sad yep, check sa ligid. 6:00 a.m. mo byahe na.</i></p> <p>(After waking up, cook rice for breakfast. At 5:00 a.m., take a bath and put on the driver's uniform. At 5:30 a.m., check the engine oil of the jeep and also check the tire conditions for air pressure. At 6:00 a.m., hit the road.)</p>	<p><i>Mani-udto, tulod kadali. 1:00 p.m. byahe na. alas 3 mag miryenda the byahe balik hangtud 9:00 p.m. Grahe dayon then palit sud-an pang panihapon.</i></p> <p>(Take a lunch break then have a short rest. By 1:00 p.m., back on the road driving. At 3:00 p.m., take a break for snacks then continue driving the route until 9:00 p.m. Go to the garage and park the jeepney. After paying the day's rental to the operator, the net income of the day will be brought home but will pass by the fast food or canteen to buy food for dinner at home.)</p>	<p><i>At 6:30 p.m. grahe na then remit sa arkila. Relax kadali. Kaon ug panihapon. 9:00 p.m. sleep na.</i></p> <p>(At 6:30 p.m., drive back to the garage then remit/pay the day's jeepney rental to the owner/operator. Go home and relax for a while after dinner. Then sleep around 9:00 p.m. to gain energy for the next day's routine.)</p>
<p><i>4:00 a.m. ang pagmata dayon magluto, maligo, mag-ilis, mamainit, lakaw. Pag-abot sa grahe magtrapo sa sakyanan, mag pray before mo byahe.</i></p> <p>(Wake up at 4:00 a.m., prepare breakfast, take a bath, change into driver's uniform, have some coffee or bread for breakfast, then walk to the garage. Upon arriving at the garage, wipe clean the jeepney then pray for a safe drive before hitting the highway.)</p>	<p><i>12 noon, I go home for lunch. Then sleep at least 1 hour the drive again until 8PM.</i></p> <p>(At 12 noon, I go home for lunch. After having lunch, rest or sleep for at least 1 hour to recharge then go back driving the route until 8:00 p.m.)</p>	<p><i>I gave all my money to my wife then check my 2 children in their room and together dinner. But before that, we pray to our Lord for all the blessings for the day.</i></p> <p>(After the day's driving chores and paying rent of the jeepney, the net income will be given to my wife. I also check my two children in the room and have a family dinner together. At the dining table, the family prays together, thanking the Lord for all the blessing the family has on that day.)</p>

MORNING	MID-DAY	NIGHT
<p>Matulog pa sa buntag ug mo mata pagka alas 11:00 a.m. Usahay mo mata ug sayo mga alas 8:00 a.m. para motabang sa asawa pag limpyo sa balay.</p> <p>(Sleep until 11:00 a.m. but sometimes wake up earlier at 8:00 a.m. to help the wife with household chores) – This is the case of a late-night driver.</p>	<p>At 12 noon maligo na ug mag prepare until 2:00 p.m. apil check-up sa tubig, suga, battery, asete ug ligid. At 2:00 p.m. magbyahe na.</p> <p>(At 12 noon will take a shower and prepare everything until 2:00 pm. including checking the jeepney unit of its water/coolant, lights/lamps, battery, oil/gas, and tire pressure. By 2:00 p.m. should be on the road already.)</p>	<p>Mag byahe hangtud 12 midnight. Mag relax at 1:00 a.m.</p> <p>(Will drive the jeepney route until 12 midnight. Will rest and relax by 1:00 a.m. then drive by 11:00 a.m. the next day.) – This is the case of a late-night route driver to cater passengers going home from work on night shifts or graveyard shifts.</p>
<p>5:00 a.m. coffee time. 5:30 a.m. jogging. 6:00 a.m. shower, then after that, check my jeep for oil ug water. 6:30 a.m. pasada na ug good bye kiss my dear wife. PS. No breakfast.</p> <p>(I wake up at 5:00 a.m. and have morning coffee, and have some exercise by jogging for 30 minutes then take a shower at 6:00 a.m. After that, check the jeepney unit for the engine oil level and water level for its radiator/coolant. At 6:30 a.m., I start driving the jeepney after kissing my dear wife goodbye. Sometimes, I drive to the route even without breakfast yet.)</p>	<p>12 p.m. mokaon ug pani-udto. 1:00 pm. byahe nasad hangtud hapon sa alas 5:00 pm..</p> <p>(12 noon will eat lunch. At 1:00 p.m., goes back driving the jeepney for the day's route until 5:00 pm.) – Depends on hitting the net income of the day.</p>	<p>Mag Facebook kadali. Watch TV. Shot gamay. Kiss sa anak ug asawa before matulog.</p> <p>(After the day's driving job, while relaxing after dinner, will check Facebook for social media information and news updates while also watching TV. Sometimes, will have some shots of wine or a glass of beer. Before going to sleep, kisses the kids and wife.)</p>
<p>Mata sa 4:00 a.m. Mag check sa unit, mag washing sa unit, maligo, mangape, ug byahe at 5:30 a.m. Human byahe sa buntag, mamahaw sa balay at 9:00 a.m. then relax, then byahe napud.</p> <p>(Wake up at 4:00 a.m. Check the jeepney unit includes oil, gas, water, breaks, tires, etc., then wash/clean the jeepney. Take a bath, have some coffee, and hit the route at 5:30 a.m. After the early rounds, go home at 9:00 a.m. for breakfast and a short rest, then back to driving for the rest of the day.)</p>	<p>Mani-udto at 12 noon. Relax/matulog up to 2:00 p.m. Byahe at 3:00 p.m. up to 6:30 p.m. Minsan magluto, minsan maglaba.</p> <p>(Will have lunch at 12 noon. Take a rest or nap up to 2:00 p.m. to recharge then drive again at 3:00 p.m. until around 6:30 p.m. On any given day, will also help wife at home to cook or wash clothes.)</p>	<p>At 6:00 p.m. magpa-washing sad dyep, pagka human mo grahe na. That's all!</p> <p>(By 6:00 p.m., drive the jeepney to the garage after cleaning and washing, then go home after that. That's it!)</p>

Note: This group was facilitated by Dr. Jojo Bascug.  
Source: Ramboll.

Table A2.2: Average Daily Routine of Jeepney Drivers – Group 2

MORNING	MID-DAY	NIGHT
<p>Maligo, mamahaw, check-up sa unit Byahe 6:30 a.m.</p> <p>(Take a bath, eat breakfast then check the jeepney unit. Start driving the route at 6:30 a.m.) – Maligo, Mamahaw, Battery check Byahe 7 a.m.</p> <p>(Take a bath, eat breakfast then check the jeepney unit's battery. Start driving the route at 7 a.m.)</p>	<p>Mani-udto Pahulay ug 30 minutes Byahe pagka 12:30 p.m.</p> <p>(Eat lunch, take a rest for 30 minutes then back on the road by 12:30 p.m.)</p> <p>Pahulay ug 1 hour Byahe nasad 2 p.m.</p> <p>(Rest and relax for 1 hour then back driving the jeepney from 2 p.m.)</p>	<p>5 p.m. uli na. Pahulay na sa balay. Labing labing sa asawa ug anak.</p> <p>5 p.m. uli na. Pahulay na sa balay. Labing labing sa asawa ug anak.</p> <p>(Goes home at 5 p.m. Relaxes at home and spend family time with wife and kids.)</p> <p>5 p.m. garahe na after car wash.</p> <p>(Park at the garage by 5 p.m. after washing/cleaning the jeepney unit)</p>
<p>Maligo Mag kape Mag kaon bago mag drive Mag drive 7 a.m. Mag grahe 5 p.m.</p> <p>(Take a bath, have coffee then eat breakfast before driving. Drives by 7 a.m. up to 7 p.m.)</p>	<p>Mag kain noon Mag relax 1 hour Mag drive 2 p.m.</p> <p>(Eat lunch by 12 noon then relax for 1 hour. By 2 p.m., drive again the route)</p>	<p>Mag grahe 5 p.m. Mag arkila sa operator Mag uwi na sa bahay Mag relax sa gabii</p> <p>(Park at the garage by 5 p.m. then pay the operator of the daily jeepney rental. After that, goes home and rests/relax for the night.)</p>
<p>Adto sa garahe i-check ang oil, gas, brake fluid sa jeep.</p> <p>(Goes to the garage in the morning and checks the engine oil, gas/fuel, brake fluid, etc. of the jeepney)</p>	<p>Uli sa balay para mag lunch kauban ang mga anak.</p> <p>(Goes home for lunch with the kids/family)</p>	<p>Arkela 600 Uli na, byahe pauli Magwashing sa sakyanan Ihatag sa regular ang 600</p> <p>(Wash the jeepney clean and park at the garage. Regularly pays the daily jeepney rental of PHP 600 then go home/travel home.)</p>

Note: This group was facilitated by Dr. Eden Sorupia.  
Source: Ramboll.

## WORKSHOP 3: EXPECTED CHALLENGES

Table A2.3: Expected Challenges – Group 1

Expected challenges for driving a bus?	Which competencies are needed to overcome these challenges?	What should be included in a bus training program?	Current challenges as jeepney driver that you will face as a bus driver? What new challenges?
<p><i>Dili ko kabalo mo operate ug high-tech nga bus. Gusto ko makat-on.</i></p> <p>(I don't know how to operate a high-tech bus, HPBS. I want to learn.)</p>	<p><i>Mo attend ug training kung naa e offer nga school para sa dugang kahibalo sa pamaagi sa electric bus.</i></p> <p>(Will attend trainings if there is a school that offers skills training for electric bus operations.)</p>	<p><i>Gusto ko makabalo mo-accident rescue, CPR. Willing mo training as mechanic.</i></p> <p>(I want to learn about accident rescue, emergency response, medics, including CPR.)</p>	<p><i>Nabalaka ko sa pag adjust sa financial sa PUJ daily income kay ang bus 15-30 income na (sweldo).</i></p> <p>(I'm worried about financial adjustments from the jeepney daily income because as bus employee I will be receiving salary on a bimonthly to monthly basis.)</p>
<p><i>Nabalaka ko kay wala nay inadlaw nga income para sa akong pamilya.</i></p> <p>(I am worried because I won't be receiving a daily source of income for my family.)</p>	<p><i>Gusto ko ug training sa TESDA bus drivers.</i></p> <p>(I want to be trained by TESDA for bus drivers.)</p>	<p><i>Modugang ug training sa HPBS.</i></p> <p>(Add more trainings for the High Priority Bus System.)</p>	<p><i>Mag adjust na lang ko kay mabag-ohan ko sa akong pangwarta kay 15th to 1 month naman ang akong sweldo.</i></p> <p>(I will adjust to the new system to earn income since I would then be receiving salary on a monthly basis.)</p>
<p><i>Nabalaka ko kay dili ko kabalo mo drive ug high tech nga bus.</i></p> <p>(I am worried because I still don't know how to drive high tech modern buses)</p>	<p><i>Gusto ko maka tu-on ug maka drive ug high tech nga bus para dili nako mabalaka pag apply.</i></p> <p>(I want to learn to drive a high tech bus, so it won't be hard for me to apply for a job at HPBS.)</p>	<p><i>Gusto ko makat-on ug electric and automatic skills sa bus para magamit nako ug dili ko mabalaka pag mag trouble ang bus.</i></p> <p>(I want to learn how to operate electric and automatic buses so I could use that knowledge and not worry in case the unit would be in trouble, or needs repair.)</p>	<p><i>Gusto nako na programa ang bus. Ang importante benefits sa driver ug modernisasyon sa atong syudad.</i></p> <p>(I like the HPBS program. What is most important to us are the benefits or job security for the drivers and the modernization of the transport system of the City of Davao.)</p>
<p><i>Nabalaka ko kay basin dili nako maka hibalo kay automatic naman ang bus nga bag-o.</i></p> <p>I am worried because I don't know how to drive since the new buses are automatic/ electric.)</p>	<p><i>Kailangan mo training ug mechanic.</i></p> <p>(Need to be trained as an HPBS mechanic.)</p>	<p><i>Mag training pa para molambo pa ang akong matun-an sa training.</i></p> <p>(Willing to be trained to improve my skills better.)</p>	<p><i>Karon nga PUJ driver pako, ma problema ko sa rent ug tubil labi na karon nga mahal ang gasolina.</i></p> <p>(Now that I am still a jeepney driver I have problems on daily rental to pay the operator/ owner, including the rising cost of fuel.)</p>

Expected challenges for driving a bus?	Which competencies are needed to overcome these challenges?	What should be included in a bus training program?	Current challenges as jeepney driver that you will face as a bus driver? What new challenges?
<p><i>Mabalaka ko kay dili ko kabalo mag drive ug electric.</i></p> <p>(I'm worried since I have no experience in driving electric buses.)</p>	<p><i>CPR training, mechanic training, paint training</i></p> <p>(Want to learn added skills on CPR training, mechanic training, paint training, etc.)</p>	<p><i>Training sa first aid.</i></p> <p>(Training for first aid.) – Also emergency response</p>	<p><i>How come kung mag bus driver, dili nako ma problema sa arkila?</i></p> <p>(Once I become an HPBS bus driver, should I not worry of vehicle rentals?)</p>
<p><i>Mabalaka ko kay pang gasto sa adlaw adlaw kung mag drive nako ug bus.</i></p> <p>(I would be worried where to get my daily expenses for the family once I'll be driving the bus.)</p>	<p><i>Malipay ko kay mag drive nako ug bus puhon. Dako kayo ang diperensya nga gikan sa multicab paingon sa bus.</i></p> <p>(I will be happy once I will be driving the HPBS bus soon. There is a big difference driving a multicab jeepney compared to the modern bus.)</p>		<p><i>Ang ako lang kay mabag-ohan ko sa pamaagi sa bus kay naan aa naman ang sariling loading ug unloading area. Layo napud sa violation ang driver.</i></p> <p>(My worries are on adapting to the new system, such as where to load and unload for the HPBS. Drivers' traffic violations would be lessened too.)</p>
<p><i>Mabalaka ko kung unsa pa mahitabo sa umaabot nga phase out (sa jeepney).</i></p> <p>(I would be worried on the impacts to the commuters once all jeepneys would be phased out.)</p>			<p><i>Daily financial. Mabalaka ko kung maka drive nako ug bus kay wala nakoy time sa akong mga anak.</i></p> <p>(Worried about daily source of income for family daily expenses since pay slips are on a monthly or bi-monthly rate. Also, my time with family/kids would be minimized since I will be driving at least 8 hours a day.)</p>

Note: This group was facilitated by Dr. Jojo Bascug.  
Source: Ramboll.

Table A2.4: Expected Challenges – Group 2

Expected challenges for driving a bus?	Which competencies are needed to overcome these challenges?	What should be included in a bus training program?	Current challenges as jeepney driver that you will face as a bus driver? What new challenges?
<p><i>Manglimpyo na ang driver. Pa pogi na.</i></p> <p>(The driver will be neat and clean. Should look well-groomed and handsome.)</p>	<p><i>Dakop Violation</i></p> <p>(Apprehensions and traffic violations)</p>	<p>To attend trainings, seminars, orientation on traffic rules and regulations.</p>	<p>How to control crowd/chaos among passengers training.</p>
<p><i>Relax ang driver</i> <i>Humot ang driver</i> <i>Pogi and driver</i></p> <p>(The driver will be more relaxed, smells good and well-groomed/handsome-looking)</p>	<p><i>Layo ta sa problema</i> <i>Dili ta mag huna-huna ug dautan</i> <i>Smile ta pirmi</i></p> <p>(Far from traffic-related problems and won't be thinking of bad things to happen while operating the bus. Always smile)</p>	<p><i>Siminaron pud ang mga pasahero para makabalo pud sila sa ilang buhaton ug motuman sa loading area or yellow box ug ang mga mag bike moagi na sa bike lane.</i></p> <p>(Commuters/passengers should also be educated thru seminars/IEC so they would also understand the traffic management of the HPBS. This includes knowledge of passengers on where to embark and disembark on designated bus loading and unloading areas. Bikers would also follow the designated bike lanes.)</p>	<p>Call 911 in case of emergency.</p>
<p><i>Big bus</i> <i>Excited</i> <i>Maligo</i> <i>Magpa humot</i></p> <p>(Expecting big buses around the city and excited for HPBS to be operational. Drivers must take a bath and must smell good.)</p>	<p><i>Daghan sakay</i> <i>Layo sa dakop</i> <i>Madautan ang bus</i></p> <p>(Expected high volume of passengers/commuters once HPBS is in operation. Drivers won't worry much about traffic violations as they would be well trained to follow road regulations already. The concern only is when the bus breaks down during the trip which could affect the schedule and passengers.)</p>	<p><i>Training for mechanics</i> <i>Contact number sa city bus.</i></p> <p>(The need for training of more HPBS mechanics. There should be visual access on the emergency contact numbers posted on each city bus.)</p>	<p><i>Trainings on how to use handsets.</i></p> <p>(This is about trainings on the use of electronic communications gadgets such as the 2-way transceiver radios, intercom, and paging systems within the HPBS lines. The National Telecommunications Commission will also train and certify on use of radio frequencies)</p>

Expected challenges for driving a bus?	Which competencies are needed to overcome these challenges?	What should be included in a bus training program?	Current challenges as jeepney driver that you will face as a bus driver? What new challenges?
	<p><i>How to treat passengers with lots of care.</i></p>		<p><i>Dapat posboton tanan para dali ang mekanik para magpara.</i></p> <p>(For passenger convenience, everything should be installed with push buttons.)</p>

Note: This group was facilitated by Dr. Eden Sorupia.  
Source: Ramboll.

# APPENDIX 3 – TRAINING PROGRAMS BY OTHER COMPARABLE JURISDICTIONS



Source: Adobe Stock

## HOW DO OTHER COMPARABLE JURISDICTIONS CONDUCT THEIR TRAINING?

Comparable programs have been benchmarked to guide and inform the high-level aspects of the training framework. This is to ensure the training framework is prepared on reasonable ground including consideration of stakeholder enrollment, number of training hours, and potential courses to cover.

The training framework is not directly comparable with these training programs, as the training framework only sets scenes and guiding requirements for the training needs. This training framework still needs to be further developed and turned into a comprehensive training program comprising comprehensive training modules, timeline, tools and materials, and assessment approach.

The following are the training programs benchmarked from various major cities and countries:

- (i) Canada – Guiding document of Government of Alberta
- (ii) United States – Guiding document of the Washington Metropolitan Area Transit Authority
- (iii) United Kingdom – Training program of a selected private driving course
- (iv) Ireland – Training program a selected private driving course
- (v) Singapore – Guiding document of the Land Transport Authority of Singapore
- (vi) Hong Kong, China – Guiding document of the Hong Kong Transport Department

Table A3 compares the summarized key aspects of these bus training courses and their delivery.

Table A3: Summary Comparison of Training Programs Adopted by Some Major Cities

Aspect	Philippines (TESDA NC III)	Canada	United States	United Kingdom and Ireland	Singapore	Hong Kong, China
<b>Bus driving course establisher (training operator and training program developer)</b>	Private (accredited) and public driving course	Private (accredited) driving course	Private (accredited) driving course	Private (accredited) driving course	Private (accredited) and public driving course	Public driving course
<b>Type of buses</b>	Commercial and public bus	Commercial and public bus	School bus and commercial bus/coach	Commercial coach and public bus	Low-floor public "Omni" bus	Any commercial bus
<b>Number of hours to complete training program</b>	122 hours	50 hours	48 hours (6 days); and annual in-service training	35–60 hours training every 5 years	40 hours (5 days inclusive assessment)	30 hours (inclusive 16 hours mandatory)
<b>Overall course coverage</b>	<ul style="list-style-type: none"> <li>• 20 hours Basic Competency modules</li> <li>• 20 hours Common Competency Modules</li> <li>• 82 hours Core competency modules</li> </ul>	<ul style="list-style-type: none"> <li>• 18 hours classroom instruction</li> <li>• 10.60 hours in-yard instruction</li> <li>• 21.25 hours of behind the-wheel training</li> </ul>	<ul style="list-style-type: none"> <li>• Classroom instruction</li> <li>• Yard maneuvers</li> <li>• On-the-road driving</li> </ul>	<ul style="list-style-type: none"> <li>• 35 hours in-person/online workshop</li> <li>• 7 hours on-road training</li> <li>• 1.5 hours of assessment</li> </ul>	<ul style="list-style-type: none"> <li>• 6 training modules</li> <li>• 1 assessment</li> </ul>	<ul style="list-style-type: none"> <li>• 5 lectures</li> <li>• 4-7 basic maneuver training sessions</li> <li>• 8-13 on-road training</li> <li>• 1 mock test</li> </ul>

Sources: Ramboll, based on various documents. Government of Alberta (Canada). 2022. Course Delivery Guidelines and Curriculum - Commercial Bus Driver Training Course (Class 2 MELT). <https://open.alberta.ca/dataset/1d14a1ff-8953-497c-8d63-f44e82d6be2c/resource/eaf87497-8f57-42d6-a3ad-d5166fcc2389/download/trans-commercial-bus-driver-training-course-course-class-2-melt-2022.pdf>; Government of the United States. Washington Metropolitan Area Transit Authority. 2017. Bus Operator Candidate Orientation. <https://www.wmata.com/business/procurement/solicitations/upload/EXHIBIT-O-Bus-Operator-Candidate-Orientation.pdf>; Government of the United Kingdom. Department for Transport. 2015. *Summary of responses to the Department for Transport's review of the mandatory disability awareness training exemption applied under EU Regulation 181/2011 (concerning bus and coach passenger rights)*. <https://assets.publishing.service.gov.uk/media/5a7dfe3240f0b62305b801ac/summary-responses-2a.pdf>; Government of Ireland. Road Safety Authority. 2019. CPC Training Manual – The Professional Bus Driver. Module 6.3. (Session 2). [https://www.rsa.ie/docs/default-source/services/s3.1-cpc/bus-driver-cpc-module-6-s2\\_print32d5d2c3-2a1a-4534-bb96-afec6975c868.pdf?Status=Master&sfvrsn=ca86a509\\_3](https://www.rsa.ie/docs/default-source/services/s3.1-cpc/bus-driver-cpc-module-6-s2_print32d5d2c3-2a1a-4534-bb96-afec6975c868.pdf?Status=Master&sfvrsn=ca86a509_3); Government of Singapore. Land Transport Authority. 2022. Omnibus Driver's Vocational Licence. [https://www.gobusiness.gov.sg/browse-all-licences/land-transport-authority-\(lta\)/omnibus-driver's-vocational-licence](https://www.gobusiness.gov.sg/browse-all-licences/land-transport-authority-(lta)/omnibus-driver's-vocational-licence); Government of the Hong Kong Special Administrative Region. Transport Department. 2022. Guide to Private / Public Light Bus and Private / Public Bus Driving Test. <https://www.td.gov.hk/filemanager/en/publication/202210%20guide%20to%20public%20private%20light%20bus%20and%20bus%20driving%20test%20eng.pdf>.

### TRAINING OPERATOR AND TRAINING DEVELOPER (FOR BUS DRIVING)

In terms of eligibility in performing as training operator for bus drivers, the Philippines currently allows several options for private and public bus driving courses with the Land Transportation Office (LTO) as the key regulator:

- (i) Private driving course or PDC (accredited by LTO) – private
- (ii) TESDA driving course (accredited by LTO) – public
- (iii) LTO driving course – public

In other cities observed, most primarily provide government-backed public driving course institutions that allow the combination of both public and private driving course operators to conduct the training. This comes with proper accreditation and adhering to the code of conduct of training schools, except in Hong Kong, China, where the role for bus driving training is assigned to the relevant authority.

For the new training framework, which is set as a regulatory requirement for HPBS based on stakeholder engagement in August 2022, the implementation of the HPBS training program will be a joint effort between LTO, the Land Transportation Franchising and Regulatory Board (LTFRB), and the Technical Education and Skills Development Authority (TESDA). This means no major change to current regulation, except between LTO and TESDA (who currently hold the roles for training program establishers) who need to ensure an appropriate training program that is aligned with this training framework requirement. For the short-term, a third-party private training vendor can be engaged to assist in the development of a suitable training program that meets the expectations set in this training framework.

For the longer term, when an appropriate and LTO-approved training program has been established, other LTO-accredited private driving course institutions or LTO-accredited new private driving course institutions may participate in providing a bus driving course following the current regulation.

### OVERALL TRAINING MODULES

Nearly all the programs consist of various modules that elaborate what the driver needs to do and what they will learn. For example, the Government of Alberta, Canada, has a well-developed training program, the Course Delivery Guidelines and Curriculum, for bus drivers.<sup>2</sup> This has nine modules, each with their own learning objectives, and each module needs to be completed before the next. The program covers the following modules:

- Module 1 – Employment in the Busing Industry
- Module 2 – Vehicle Component and Inspection Activities
- Module 3 – Basic Driving Techniques
- Module 4 – Professional Driving Habits
- Module 5 – Off Road Tasks and Maneuvers
- Module 6 – Documents, Paperwork, and Regulatory Requirements
- Module 7 – Hours of Service Compliance
- Module 8 - Passenger Management, Loading and Unloading Passengers
- Module 9 – Handling Emergencies

<sup>2</sup> Government of Alberta (Canada). 2022. Course Delivery Guidelines and Curriculum - Commercial Bus Driver Training Course (Class 2 MELT). <https://open.alberta.ca/dataset/1d14a1ff-8953-497c-8d63-f44e82d6be2c/resource/eaf87497-8f57-42d6-a3ad-d5166fcc2389/download/trans-commercial-bus-driver-training-course-course-class-2-melt-2022.pdf>.

With all the various modules from the array of training programs available, the critical modules identified for the HPBS training framework appear to be in line with the training program and guidelines that are adopted in major cities.

### HOURS OF TRAINING

In comparing the current training program in Davao City with other major cities' bus training courses, there are clear differences in the training programs' number of hours and the entity establishing the training structure. Most major cities set a guiding duration of conducting bus driver training course within range of 20–60 hours. In Hong Kong, China, the government sets a guiding duration of 30 hours, with 16 hours of that set as mandatory.

In comparison, a significant difference was observed with the TESDA NC III training duration of 122 hours in Davao City, as well as the Philippines. As a criterion for the license, LTO requires a minimum of 23 hours of training to be completed, comprising 15 hours theoretical and 8 hours of practical training.

To achieve an efficient training for the HPBS, traditional methods and technology to complement the training standards will be used. Two options are proposed to the current regulations and training framework to achieve the utmost efficiency and deliver the best training standards to the driver. These options are:

- (i) **Option 1:** Establish a new training program, with modules aligning to the local context; or
- (ii) **Option 2:** Modify the existing training modules and/or training materials of TESDA NC III, LTO, and LTFRB, and distinguish between mandatory and non-mandatory modules:
  - **Mandatory** may heavily cover critical training for skills. For instance, this may include driving the bus under a safe and convenient environment, understanding and obeying traffic rules and regulations, understanding emergency and incident procedures.
  - **Non-Mandatory** may cover all other training for skills that may be transferred to other staff roles, or basic skills that are best addressed as part of screening requirement prior to training admission. For instance, this may include thorough skills in performing major maintenance and repairs, and basic math and communication skills which are assessed as part of pre-screening stage.



# APPENDIX 4 – SUGGESTED TRAINING MODULES CONTENT



Source: Adobe Stock

The module descriptions provided here are a further development of the thematic modules presented in the training framework, based on input from lead representatives from the following stakeholders: LTO, TESDA, LTFRB, the Davao City local government unit, Department of Transportation, and the Operational Readiness, Activation and Transition (ORAT) project team (during a workshop conducted on 7 September 2023).

For each module it is noted:

- whether the module is considered as “HPBS-Essential” for all experience levels,
- which core theme(s) the module relates to,
- which primary delivery format is recommended (where several formats are indicated, the content should be delivered across closely connected parts),
- which entity is the lead responsible for content compliance,
- what is the focus and objective as well as the topics identified as important to include, and
- any awareness points for the module in question.

Outcomes and expected duration have not yet been defined but is included in the overview format as a reminder for the training developer.

Pre-training introduction material or journey launch should include:

- requirements and responsibilities in relation to completing the training, including physical requirements (conditional driving code),
- overview of steps and timeline for the training program,
- certifications and completion, and
- being a role model for other operators (Kiboy).

Table A4.1: Suggested Content for Module 1-1

Working title: Module 1-1: An Enriching Experience		HPBS-Essential module: Yes
<b>Core theme:</b> Transition to HPBS	<b>Focus:</b> To prime the mind and heart of the bus driver—to show that the HPBS will benefit them, their families, and the city. It should be motivating and exciting.	<b>Objective:</b> Learn about how this transition will benefit them, their families, and society. The goal of the module is to motivate and excite the new bus drivers.
<b>Primary delivery format:</b> Digital learning (Theory-based)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead:</b> Government – Davao Bus	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Introduction to HPBS, including: <ul style="list-style-type: none"> <li>• Vision of the project</li> <li>• Main features and benefits (reduction in CO<sub>2</sub>, environmental benefits, traffic loads, etc.)</li> <li>• Overview of the organization and work processes</li> </ul> </li> <li>• Key pillars of HPBS convenience, including: <ul style="list-style-type: none"> <li>• Drivers' benefits (wage is secured, structured rewards, incentives, and compensation)</li> <li>• Passenger benefits (service reliability, fare, and charges)</li> <li>• Benefits for all (comfortable and safer vehicle, accessibility for all)</li> </ul> </li> <li>• Providing service reliability, including: <ul style="list-style-type: none"> <li>• Operating pre-determined routes and designated bus stops</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> In the longer term, after the HPBS has been introduced, the module focus should change from a transition perspective to a more general introduction for new drivers.  It is also important to highlight messages from the crosscutting themes to the trainee to emphasize the value that the HPBS brings to Davao City in terms of GEDSI and environmental impact.	

CO<sub>2</sub> = carbon dioxide; GEDSI = gender equality, disability, and social inclusion; HPBS = High Priority Bus System; TBD = to be determined.  
Source: Ramboll.

Table A4.2: Suggested Content for Module 1-2

Working title: Module 1-2: Roles and Responsibilities as an HPBS Driver		HPBS-Essential module: Yes
<b>Core theme:</b> Transition to HPBS	<b>Focus:</b> To clarify the difference in responsibilities when drivers transition from jeepney driver to bus driver. To explain, for example, that they no longer need to handle the mechanics of the bus.	<b>Objective:</b> The driver will learn about the different roles and responsibilities in the HPBS and how it differs from being a jeepney driver. They must, in their own words, be able to explain the differences.
<b>Primary delivery format:</b> Digital learning (Theory-based)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead:</b> Government – Davao Bus	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Introduction to roles and responsibilities as a driver of the HPBS or Davao Public Transport Modernization Project, including: <ul style="list-style-type: none"> <li>• Responsibilities when working to a roster and driving to a schedule</li> <li>• The importance of punctual reporting for duty</li> <li>• Potential consequences if responsibilities are not met</li> <li>• The need for constant monitoring and assistance</li> </ul> </li> <li>• Main touchpoints as a driver, including: <ul style="list-style-type: none"> <li>• The nature and contact with the operation center</li> <li>• Use of maintenance services</li> </ul> </li> <li>• Familiarization on performance-based incentives and how it works, including: <ul style="list-style-type: none"> <li>• Adhering to key performance indicators</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> In the longer term, after the HPBS has been introduced, the module focus should change from a transition perspective to a more general introduction for new drivers.  For alignment with the crosscutting themes, it is important to highlight the need to maintain certain operational performance at all aspects, ensuring equal opportunity of bus service to all users.	

HPBS = High Priority Bus System, TBD = to be determined.  
Source: Ramboll.

**Table A4.3: Suggested Content for Module 2**

<b>Working title:</b> Module 2-1: HPBS Code of Conduct		<b>HPBS-Essential module:</b> Yes
<b>Core theme:</b> Transition to HPBS	<b>Focus:</b> To inform drivers of the rules they need to follow as a representative for the HPBS and the guidelines that will help them navigate situations in their work.	<b>Objective:</b> Learn what the code of conduct is for drivers, what this means for them in praxis, and what the consequences are if a driver breaks the conduct.
<b>Primary delivery format:</b> Digital learning (Theory-based)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead:</b> Government – Davao Bus	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Introduction to HPBS official code of conduct, including:                             <ul style="list-style-type: none"> <li>• Guidelines for ensuring good passenger experience</li> <li>• The value of professionalism as a driver (well-trained and disciplined drivers)</li> <li>• The importance of respecting all commuters</li> <li>• Working attire and cleanliness</li> </ul> </li> <li>• Awareness of relevant acts and regulations, e.g.:                             <ul style="list-style-type: none"> <li>• R.A. 10930 Demerit System (driver’s license)</li> <li>• Anti-distracted driving act</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> In the longer term, after the HPBS has been introduced, the module focus should change from a transition perspective to a more general introduction for new drivers.  For alignment with the crosscutting themes, it is important to highlight the need to maintain certain operational performance at all aspects, ensuring equal opportunity of bus service to all users.	
<b>Working title:</b> Module 2-2: Information about the Transition for the Driver’s Partner		<b>HPBS-Essential module:</b> Yes
<b>Core theme:</b> Transition to HPBS	<b>Focus:</b> To help explain to the spouse or partner the transition from jeepney driver to bus driver and provide tools to navigate the change. It should include, for example, differences in payment schemes and a template for monthly budgeting.	<b>Objective:</b> Give the spouse or partner insight into what the transition will mean for them as a family. They will be given access to templates and methods that can help them cope with the new setup.
<b>Primary delivery format:</b> Digital learning (Theory-based)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead:</b> Government – Davao Bus	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Introduction to HPBS official code of conduct, including:</li> <li>• Overview of main changes and benefits related to the transition</li> <li>• Introduction to potential income structures, including:                             <ul style="list-style-type: none"> <li>• Overview of payment schemes</li> </ul> </li> <li>• Basics of budgeting and financial literacy, including:                             <ul style="list-style-type: none"> <li>• Monthly budgeting (provide template)</li> </ul> </li> <li>• Expected professionalism, including:                             <ul style="list-style-type: none"> <li>• Cleanliness</li> <li>• Working attire</li> </ul> </li> <li>• Structured workplans and shifts, including:                             <ul style="list-style-type: none"> <li>• Meals and breaks</li> <li>• Sickness</li> </ul> </li> </ul>	

<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> In the longer term, after the HPBS has been introduced, the module focus should change from a transition perspective to a more general introduction for new drivers.  Ensure access to the training module is possible for the partner, possibly already at the recruitment stage.  For alignment with the crosscutting themes, it is important to highlight the message to the trainee and spouse that certain standards, including manner, outfit, etc. are set as a new service standards to provide quality public service.
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HPBS = High Priority Bus System, R.A. = Republic Act, TBD = to be determined.  
Source: Ramboll.

**Table A4.4: Suggested Content for Module 3**

<b>Working title:</b> Module 3: Overall Changes to Traffic Priority for the HPBS		<b>HPBS-Essential module:</b> Yes
<b>Core theme:</b> Transition to HPBS Safety and Core	<b>Focus:</b> To inform all drivers of the traffic priority bus lanes and how the HPBS operation is set up. It should introduce the driver to all new aspects of the HPBS operations.	<b>Objective:</b> Learn about the changes in the city due to the HPBS. The driver will also learn about the overall operation and how this differs from the jeepney operation.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> LTO	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Basic understanding of how traffic prioritization logic works (DPTMP), including:                             <ul style="list-style-type: none"> <li>• Traffic rules related to priority bus lanes</li> <li>• Priority towards cyclists and pedestrians</li> <li>• E-bus system and charging stations</li> <li>• Designated loading/unloading areas</li> <li>• Possible traffic violations in obstructing the HPBS lane</li> </ul> </li> <li>• Enable public acceptance towards HPBS as a new system, including:                             <ul style="list-style-type: none"> <li>• Managing negative perceptions on traffic priority, how to explain it to other motorists (KST)</li> <li>• Behavioral change for other users using the road together with the HPBS (Marvin)</li> </ul> </li> <li>• Considerations for safe driving, including:                             <ul style="list-style-type: none"> <li>• Local commuter necessities (transport of goods, area commerce, peak hours)</li> <li>• Traffic volume of certain areas</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> In the longer term, after the HPBS has been introduced, the module focus should change from a transition perspective to a more general introduction for new drivers.  For alignment with the crosscutting themes, it is important to be aware of alignment with related modules (Module 10 on emergency, Module 11 on passengers with special needs, Module 14 on road familiarity). This is to bring the context on how the new bus system will address the needs of all user groups.	

DPTMP = Davao Public Transport Modernization Project, HPBS = High Priority Bus System, LTO = Land Transportation Office, TBD = to be determined.  
Source: Ramboll.

Table A4.5: Suggested Content for Module 4-1

Working title: Module 4-1: Pre- and Post-trip Inspection		HPBS-Essential module: No
<b>Core theme:</b> Safety and Core	<b>Focus:</b> To inform all drivers of the pre-trip, post-trip inspection, and general maintenance of the bus.	<b>Objective:</b> The driver must explain and show how they conduct pre- and post-trip inspections as well as do general maintenance.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> TESDA?	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Overview of daily handover processes, including: <ul style="list-style-type: none"> <li>• Pre-trip inspection (dispatching clearance)</li> <li>• Post-trip inspection</li> <li>• Inspection checklists (specific checklist for e-bus and articulated vehicles)</li> </ul> </li> <li>• Introduction to maintenance schedule, including: <ul style="list-style-type: none"> <li>• Preventive maintenance (TESDA)</li> <li>• Corrective maintenance</li> <li>• Sustainability mindset: Preventive maintenance as a way to conserve resources (KST)</li> <li>• Waste and used oil management processes (Marvin)</li> </ul> </li> <li>• Risk assessment, how to identify safety critical findings (KST), including: <ul style="list-style-type: none"> <li>• Procedure for identified errors</li> <li>• Service hotline</li> <li>• Basic knowledge in troubleshooting</li> </ul> </li> <li>• Systematic reporting, including: <ul style="list-style-type: none"> <li>• Reporting of physical problems and obstructions along the route post-trip (DPTMP)</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> Important to be clear about the drivers' responsibility, which does not include mechanical maintenance or maintenance of the bus interior.  For alignment with the crosscutting themes, it is important for the trainees to be aware of several actions that may affect the sustainability of the bus systems and facilities. For instance, this may include the importance of keeping the punctuality of maintenance frequency, practice of waste lubricant disposal, and use of clean water and disposal of wastewater, etc.	

DPTMP = Davao Public Transport Modernization Project, HPBS = High Priority Bus System, TBD = to be determined, TESDA = Technical Education and Skills Development Authority.  
Source: Ramboll.

Table A4.6: Suggested Content for Module 4-2

Working title: Module 4-1: Pre- and Post-trip Inspection		HPBS-Essential module: No
<b>Core theme:</b> Safety and Core	<b>Focus:</b> To ensure that the vehicle is worthy for the road. It is not the bus driver's responsibility to fix anything mechanical in the bus, but it is on the driver to ensure that the bus is ready for the road and report it if not.	<b>Objective:</b> The driver will be able to conduct a general walkthrough of their vehicle to determine whether the bus is roadworthy. The driver should know who to contact if the bus is not roadworthy.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> TESDA?	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Daily handover process related to roadworthiness, including: <ul style="list-style-type: none"> <li>• Procedure for reporting deficiencies</li> <li>• Communications with depot supervision</li> <li>• Maintenance schedule</li> </ul> </li> <li>• Operating electric and automatic buses, including: <ul style="list-style-type: none"> <li>• Power train and under chassis components</li> <li>• Automotive electrical components and engine</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> Avoid overlap with Module 4-1 and ensure relevant links across the two modules.  For alignment with the crosscutting themes, it is important for the trainees to be aware of several actions that may affect the sustainability of the bus systems and facilities. For instance, this may include the awareness that a tiny failure of a component may lead to wider complexity or system failure.	

TBD = to be determined, TESDA = Technical Education and Skills Development Authority.  
Source: Ramboll.

Table A4.7: Suggested Content for Module 5

Working title: Module 5: Road Safety and Traffic Safety Regulations		HPBS-Essential module: Yes
<b>Core theme:</b> Safety and Core	<b>Focus:</b> To inform all drivers of the specific traffic safety regulations for their potential routes and ensuring that all bus drivers have sufficient knowledge of the traffic regulations for city- and highway driving.	<b>Objective:</b> The driver must be able to pass a test showcasing their knowledge regarding safety regulation in city and rural areas.
<b>Primary delivery format:</b> Digital learning Simulator (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> LTO	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>Traffic rules, including: <ul style="list-style-type: none"> <li>Special laws (R.A. 10916, R.A. 8750, R.A. 11229, R.A. 7277)</li> <li>Local transport and traffic code (e.g., local speed limit)</li> <li>Future changes on regulations (city ordinance) for traffic signal prioritization (DPTMP)</li> </ul> </li> <li>Safety procedures, including: <ul style="list-style-type: none"> <li>Using bus stops for HPBS</li> <li>Awareness of bicycle lanes</li> </ul> </li> <li>Good manners in driving, including: <ul style="list-style-type: none"> <li>Anger management</li> <li>Correct use of horns (reduce noise pollution)</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> The module should be linked to Module 6 on practical driving elements.  Be aware of any prerequisites for reading/understanding signs.  For alignment with the crosscutting themes, it is important for the trainees to be aware of priority on the road in responding to other traveler groups, such as pedestrians, cyclists, etc.	

DPTMP = Davao Public Transport Modernization Project, HPBS = High Priority Bus System, LTO = Land Transportation Office, TBD = to be determined.

Source: Ramboll.

Table A4.8: Suggested Content for Module 6

Working title: Module 6: Driving Techniques		HPBS-Essential module: No
<b>Core theme:</b> Safety and Core Functionality and Skills	<b>Focus:</b> To inform and train all drivers on driving techniques, primarily how they turn, reverse, park, change lanes, cross, diverge, and merge in a safe way.	<b>Objective:</b> The driver must showcase adequate safe driving techniques in both rural and city environments.
<b>Primary delivery format:</b> Simulator In-bus (Practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> TESDA	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>Practical bus handling, including: <ul style="list-style-type: none"> <li>Operating (driving) electric and automated buses, 18-meter articulated buses</li> <li>Pulse and glide driving technique (DPTMP) – how to avoid harsh breaking/acceleration</li> <li>Defensive driving techniques</li> <li>Use of GPS/speed limiter</li> <li>Proper use of indicators and horns</li> <li>Techniques for loading and unloading</li> <li>Techniques for cargo and passenger handling</li> </ul> </li> <li>Driving techniques for different conditions, including: <ul style="list-style-type: none"> <li>Different road conditions</li> <li>Various weather conditions, especially heavy rain/flooding</li> <li>Driving alongside bikes and active transport users</li> <li>How to manage blind spots</li> <li>Behaviors of children and other pedestrians</li> </ul> </li> <li>Good manners in driving, driver duties and responsibilities</li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> The module should be linked to Module 2 on code of conduct and Module 5 on traffic regulations.  Be aware of any prerequisites for reading/understanding signs.  For alignment with the crosscutting themes, it is important for the trainees to be aware of certain driving techniques that are for the benefit of certain vulnerable users. For instance, this may include convenient driving maneuvers to ensure safety of pregnant women, the elderly, and young passengers on board.	

DPTMP = Davao Public Transport Modernization Project, HPBS = High Priority Bus System, LTO = Land Transportation Office, TBD = to be determined.

Source: Ramboll.

**Table A4.9: Suggested Content for Module 7**

Working title: Module 7: Bus Operation and Control System		HPBS-Essential module: No
<b>Core theme:</b> Transition to HPBS Functionality and Skills	<b>Focus:</b> To build drivers' understanding of all aspects of the bus operation related to the bus driver role, and how they use the control system within the bus, as well as communication functions within the bus.	<b>Objective:</b> The driver will show efficient skills in operating the bus, show an understanding of their role, demonstrate sufficient control over the system, and demonstrate how to communicate with the operation center.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Operator	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Familiarization with bus control system, including:                             <ul style="list-style-type: none"> <li>• Dashboard information interpretation (DPTMP), ability to interpret all indicators</li> <li>• Common prompts and reactions</li> <li>• GPS monitoring system</li> <li>• Operating the speed limiter</li> <li>• Use of PA system when needed</li> <li>• Battery status and charge prompts for e-buses</li> </ul> </li> <li>• Information and communication dissemination, including:                             <ul style="list-style-type: none"> <li>• Basic communication skills</li> <li>• Operating bus information system</li> <li>• Communication with operation center (incidents during operation)</li> </ul> </li> <li>• IT operation integration</li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> The module should be associated with the selected technology system (ITS) that will be implemented in the wider bus system. It is important for the trainees to understand and be able to maintain certain service performances by utilizing the technology.  For alignment with the crosscutting themes, it is important for the trainees to be able to maintain the performance of certain services to maintain the service reliability for the benefit of all user groups.	

DPTMP = Davao Public Transport Modernization Project, GPS = global positioning system, HPBS = High Priority Bus System, IT = information technology, ITS = intelligent transportation system, PA = public announcement, TBD = to be determined.

Source: Ramboll.

**Table A4.10: Suggested Content for Module 8-1**

Working title: Module 8-1: Fare, Ticketing, and Payment System		HPBS-Essential module: No
<b>Core theme:</b> Functionality and Skills	<b>Focus:</b> To get familiarized with the new payment system, which includes using a demo machine with fictional customers to receive payment and give returns. Should also include a focus on overall operations.	<b>Objective:</b> The driver will learn how to operate the new payment system and showcase an understanding of the overall operation around payment—including ticket forms and other payment methods than cash.
<b>Primary delivery format:</b> Digital learning In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Operator	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Familiarization with bus control system, including:                             <ul style="list-style-type: none"> <li>• Overview of types of fares and tickets, including:                                     <ul style="list-style-type: none"> <li>• Familiarization of passengers that should have free or reduced fares (consideration of PWD-discounted fare in relation to R.A. 7277)</li> <li>• How to react to fare aversion (DPTMP)</li> </ul> </li> </ul> </li> <li>• Operation of the payment system, including:                             <ul style="list-style-type: none"> <li>• Guiding passengers to use the designated payment loading station</li> <li>• Overview of payment options</li> <li>• Adjustment to new modes of payment, e.g., payment online, cashless payment app</li> <li>• How to assist passengers who intend to pay with cash</li> <li>• How to assist PWD and seniors</li> <li>• How to react when fare media of the passenger does not work (e.g., no money)</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> The module should be associated with the selected technology system (ITS) that will be implemented in the wider bus system. It is important for the trainees to understand and be able to perform specific activities including ensuring a smooth passenger payment process and appropriate payment data transfer to the house.  For alignment with the crosscutting themes, it is important for the trainees to be able to maintain a certain standard procedure of registering appropriate payment that correspond with individual mileage for all user groups. For instance, this may include how alighting and boarding registration for different types of user groups may apply given the space they may need (e.g., parents with pram and person with personal utility devices may require specific assistance or procedure).	

DPTMP = Davao Public Transport Modernization Project, HPBS = High Priority Bus System, ITS = intelligent transportation system, PWD = person with disability, R.A. = Republic Act, TBD = to be determined.

Source: Ramboll.

**Table A4.11: Suggested Content for Module 8-2**

<b>Working title:</b> Module 8-2: Revenue Collection Management		<b>HPBS-Essential module:</b> No
<b>Core theme:</b> Functionality and Skills	<b>Focus:</b> To understand the driver’s role in revenue collection management. It will focus on how to ensure everything is ready for the revenue collector.	<b>Objective:</b> The driver must demonstrate a sufficient understanding of their role in collecting revenue.
<b>Primary delivery format:</b> Digital learning In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Operator	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Understanding of the revenue collection system/process, including:                             <ul style="list-style-type: none"> <li>• Cash flow system</li> <li>• Responsibilities of the driver</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD along with development of Training Program	<b>Awareness points:</b> The module should be associated with the selected technology system (ITS) that will be implemented in the wider bus system. It is important for the trainees to understand and be able to perform specific activities including ensuring a smooth passenger payment process and appropriate payment data transfer to the house.	

ITS = intelligent transportation system, TBD = to be determined.  
Source: Ramboll.

**Table A4.12: Suggested Content for Module 9**

<b>Working title:</b> Module 9: Passenger Handling (Standard Operation)		<b>HPBS-Essential module:</b> No
<b>Core theme:</b> Safety and Core Functionality and Skills	<b>Focus:</b> To build understanding of the functionalities within the bus that can help the bus driver to handle boarding and alighting of all types of passengers.	<b>Objective:</b> The driver will learn how to operate the functionalities within the bus that can help the driver manage passengers effectively and safely.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Shared operator and government	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Boarding and descending the bus</li> <li>• Driver’s role and responsibilities (LTO module)</li> <li>• Information boards on board</li> <li>• Protocols for prohibited goods in the bus (DPTMP)</li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> This module may be associated with the specific bus vehicle requirement, such as doors positioning, and in-bus unit that may determine the procedure for alighting and boarding at normal operation.	

DPTMP = Davao Public Transport Modernization Project, LTO = Land Transportation Office, TBD = to be determined.  
Source: Ramboll.

**Table A4.13: Suggested Content for Module 10**

<b>Working title:</b> Module 10: Emergency and Incident Management		<b>HPBS-Essential module:</b> Yes
<b>Core theme:</b> Safety and Core Functionality and Skills	<b>Focus:</b> To inform how to handle an emergency involving the bus or passengers, as well as incident management.	<b>Objective:</b> Showcase effective emergency and incident management in various situations that could occur on a driver’s route. This should cover accidents including the bus and other vehicles and harassment of passengers.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> TESDA	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Introduction to protocols emergency and incident protocols, including: <ul style="list-style-type: none"> <li>• What is considered an emergency (DPTMP) – collision, fire, breakdown, criminal acts</li> </ul> </li> <li>• Awareness and execution of emergency plans, including: <ul style="list-style-type: none"> <li>• Drills and pre-incident plans</li> <li>• Roles of depot OCC and central OCC (link to CTTMO and PSSO)</li> <li>• Protocols for rerouting (DPTMP)</li> <li>• Accessibility to emergency numbers</li> <li>• Accident rescue and emergency response</li> <li>• Operation of fire extinguisher</li> </ul> </li> <li>• Conducting AED and first aid, including: <ul style="list-style-type: none"> <li>• Availability of first aid kits</li> <li>• Basic life support training</li> </ul> </li> <li>• Incident response, including: <ul style="list-style-type: none"> <li>• Dealing with harassment of marginalized groups</li> <li>• Conflict management and de-escalation</li> <li>• Adapt Davao City’s culture of security</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> The module should be followed up by regular emergency drills. This module may be associated with any applicable communication technology that will be adopted by the bus system.  For alignment with the crosscutting themes, it is important for trainees to be aware of ways to engage with different user groups under emergency situations. For instance, the driver needs to be aware at all times of the existence of passengers with potential hearing limitation or visual impairment as part of the procedure of evacuation.	

AED = automated external defibrillator, CTTMO = City Transport and Traffic Management Office, DPTMP = Davao Public Transport Modernization Project, HPBS = High Priority Bus System, OCC = operation control center, PSSO = Public Safety and Security Office, TBD = to be determined, TESDA = Technical Education and Skills Development Authority.  
Source: Ramboll.

**Table A4.14: Suggested Content for Module 11**

<b>Working title:</b> Module 11: Passenger Handling (Passengers with Special Needs)		<b>HPBS-Essential module:</b> Yes
<b>Core theme:</b> Safety and Core Functionality and Skills Accessibility	<b>Focus:</b> To build understanding of the functionalities within the bus that can help the bus driver assist passengers with special needs, particularly persons with disabilities (PWDs).	<b>Objective:</b> The driver will demonstrate how to ensure passengers such as women with strollers, small children, elderly people, and people with disabilities can get on and off the bus easily.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Shared operator and government Conducting FGD with PWD community as peer reviewer (DOTr)	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Introduction to gender and PWD sensitivity, including: <ul style="list-style-type: none"> <li>• Enable priority to PWD, elderly, and pregnant women (also invisible disabilities)</li> <li>• Disability awareness reminders</li> <li>• Gender and Development Program</li> <li>• R.A. 7277, Rule 7, Section 2</li> <li>• Refer to fare matrix for PWD and senior citizens (Module 8)</li> </ul> </li> <li>• Accessibility features on the bus, including: <ul style="list-style-type: none"> <li>• Positioning at stops for ramp deployment and procedure if the stop is blocked</li> <li>• Priority seats on the bus</li> <li>• Time in motion training for assisting people in wheelchair (DPTMP)</li> </ul> </li> <li>• Hospitality education, including: <ul style="list-style-type: none"> <li>• Good manners and right conduct sessions</li> <li>• Interpersonal skills and patience</li> </ul> </li> <li>• Helping PWD in case of emergency (link to Module 10), including: <ul style="list-style-type: none"> <li>• Identifying passenger needs in emergency situations</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> This module may be associated with the specific bus vehicle requirement, such as doors positioning, and in-bus unit that may determine the procedure for alighting and boarding, particularly in assisting people with disabilities and senior people.	

DPTMP = Davao Public Transport Modernization Project, DOTr = Department of Transportation, FGD = focus group discussion, HPBS = High Priority Bus System, R.A. = Republic Act, TBD = to be determined.  
Source: Ramboll.

**Table A4.15: Suggested Content for Module 12**

Working title: Module 12: Passenger Interaction and Customer Service		HPBS-Essential module: No
<b>Core theme:</b> Functionality and Skills	<b>Focus:</b> To build competencies to interact with all passengers and provide good customer service. Including ensuring that specific groups such as senior persons or pregnant women be given priority.	<b>Objective:</b> The driver will learn how to communicate in an appropriate manner with all passengers. The module will focus on what good customer service is and how to provide customer service in a bus.
<b>Primary delivery format:</b> Digital learning In-bus (Practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Shared operator/Davao Bus	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Cornerstones of good customer service, including:                             <ul style="list-style-type: none"> <li>• Communication and interpersonal skills</li> <li>• Good manners and right conduct training</li> <li>• Reference to HPBS Code of Conduct (Module 2)</li> </ul> </li> <li>• Procedures for assessing service levels, for example:                             <ul style="list-style-type: none"> <li>• Recorded playback for KPI monitoring</li> </ul> </li> <li>• Work ethics, including:                             <ul style="list-style-type: none"> <li>• Drivers must have proper grooming like wearing the complete uniform</li> </ul> </li> <li>• Dealing with passenger feedback, including:                             <ul style="list-style-type: none"> <li>• Complaint management</li> <li>• Conflict handling and de-escalation</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> This module is expected to address soft skills and attitude of the driver/trainee towards interaction with all user groups.  For alignment with the crosscutting themes, it is important for the trainees to be aware of ways to engage with specific user groups with visual or hearing impairment.	

HPBS = High Priority Bus System, KPI = key performance indicator, TBD = to be determined.  
Source: Ramboll.

**Table A4.16: Suggested Content for Module 13**

Working title: Module 13: Driver Wellness		HPBS-Essential module: Yes
<b>Core theme:</b> Safety and Core	<b>Focus:</b> To inform drivers of the importance of driver’s wellness and medical condition compliance. It includes the code of conduct for all drivers—including zero tolerance for drugs and alcohol, as well as how the driver handles fatigue and breaks.	<b>Objective:</b> The importance of keeping their own health at its best as well as the consequences if they fail drug tests.
<b>Primary delivery format:</b> Digital learning (Theory-based)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Government/Davao Bus	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>• Introduction to City Health Protocols and compliance with these, including:                             <ul style="list-style-type: none"> <li>• Dispatching (Driver’s Wellness Evaluator)</li> <li>• Attendance management by operators</li> <li>• R.A. 10586 DUI</li> </ul> </li> <li>• Overview of rights and requirements related to driver wellness, including:                             <ul style="list-style-type: none"> <li>• Sick pay (consequences in case of excessive sickness)</li> <li>• Health and wellness programs</li> <li>• Mandatory regular check-ups</li> <li>• Mandatory random drug test (LTO, PDEA, and DOH)</li> </ul> </li> <li>• Introduction to mental and physical health, including:                             <ul style="list-style-type: none"> <li>• Signs of stress</li> <li>• Recognizing fatigue</li> <li>• Signs of stroke or other health emergencies</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> This module is to provide guiding principles from Health, Safety and Environment, from local and international perspectives.	

DOH = Department of Health, DUI = driving under the influence, HPBS = High Priority Bus System, LTO = Land Transportation Office, PDEA = Philippine Drug Enforcement Agency, R.A. = Republic Act, TBD = to be determined.  
Source: Ramboll.

**Table A4.17: Suggested Content for Module 14**

Working title: Module 12: Passenger Interaction and Customer Service		HPBS-Essential module: No
<b>Core theme:</b> Safety and Core Functionality and Skills	<b>Focus:</b> To gain road familiarization with the possible routes the bus driver will be assigned to. It should primarily focus on difficult parts of the road and safety considerations.	<b>Objective:</b> Demonstrate a high level of knowledge regarding potential routes and how to handle the potential safety hazards along the route.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Shared operator and government	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>Familiarization of specific route(s) for the new bus system, including:                             <ul style="list-style-type: none"> <li>Road conditions along the route(s)</li> <li>Identify accident prone areas (LTO)</li> <li>Recognize local ordinance like speed limits on different roads of the city</li> <li>Road signs and markings (Marvin)</li> <li>Position of designated areas for loading/unloading passengers</li> <li>Understanding of traffic situations on certain times on certain parts of the route</li> <li>Awareness of known hazards, i.e., playgrounds, residential areas, falling debris</li> </ul> </li> <li>Techniques applied to the specific route(s), such as:                             <ul style="list-style-type: none"> <li>Techniques in maintaining headway (DPTMP)</li> <li>Time management, to arrive on time per bus station</li> <li>Glide and pulse technique (DPTMP)</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> The module should also be associated with the implementation of supporting infrastructure, such as the depot and bus stops along the corridor, as well as any specific road conditions.  For alignment with the crosscutting themes, it is important for the trainees to be aware of any specific facilities or developments along the corridors to make certain driving adjustments. For instance, the driver should always reduce speed where there is a school, hospital, elderly house, or other similar development.	

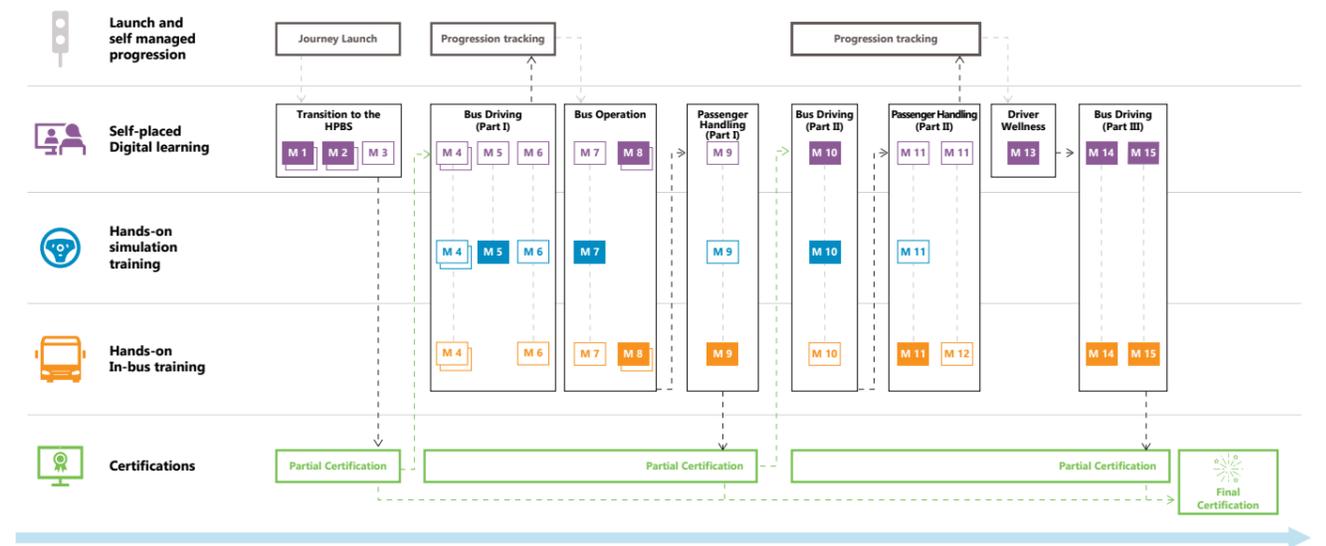
DPTMP = Davao Public Transport Modernization Project, HPBS = High Priority Bus System, TBD = to be determined. Source: Ramboll.

**Table A4.18: Suggested Content for Module 15**

Working title: Module 15: Environmental Driving		HPBS-Essential module: Yes
<b>Core theme:</b> Sustainability	<b>Focus:</b> To build skills that enable the driver to drive more environmentally friendly and why this is important to focus on for Davao City. This could include a link between driving behavior and fuel consumption.	<b>Objective:</b> The driver will learn about environmentally friendly driving and demonstrate in praxis how they will ensure their driving is environment-friendly.
<b>Primary delivery format:</b> Digital learning Simulator In-bus (Theory-based and practical)	<b>Outcomes:</b> <i>TBD by training program developer</i>	
<b>Lead reviewer:</b> Operator	<b>Topics to be included:</b> <ul style="list-style-type: none"> <li>Ideal driving habits, including:                             <ul style="list-style-type: none"> <li>Basics to pulse and glide driving technique and regenerative breaking (DPTMP)</li> <li>Driving behavior/techniques in sloped areas, during floods, heavy rain and other situations (Marvin)</li> <li>Correlation of driving behavior and fuel consumption</li> </ul> </li> <li>Technology adaptation and innovation, including:                             <ul style="list-style-type: none"> <li>Bus telematics will monitor driving styles</li> <li>Impact of preventive maintenance schedule</li> </ul> </li> </ul>	
<b>Estimated duration:</b> TBD with the development of the training program	<b>Awareness points:</b> This module should be associated with the bus engine and its corresponding manual instruction for environmentally friendly driving.	

DPTMP = Davao Public Transport Modernization Project, HPBS = High Priority Bus System, TBD = to be determined. Source: Ramboll.

# APPENDIX 5 – HPBS-ESSENTIAL (SUB)MODULES IN THE LEARNING JOURNEY



M = module.

Note: The submodules indicated in full color above are the ones identified as HPBS-Essential across all levels of experience.

Source: Ramboll.

# APPENDIX 6 – HPBS TRAINING MODULES ALIGNMENT WITH LOCAL CONTEXT



**Table A6.1: HPBS Training Framework Alignment with Local Context of Training Program (TESDA, LTO, LTRFB)**

Proposed Modules for HBPS			Equivalent in TESDA NC III	
Modules	Category	Type of learning(Digital(D), Simulator(S), In-cab(B))	Modules	Category
Module 1: An enriching Experiences - Role and responsibilities knowledge	Transition	D		
Module 2: The Transition (to HPBS) - Code of Conduct	Transition	D		
Module 3: The Transition (to HPBS) - Overall changes to traffic priority for HPBS - if any	Transition	D		
<b>Partial certification</b>				
Module 4: Pre-Driving Setup / Pre-Inspection Trip	Safety and Driving essential	D/S/B	ALT832305 Perform Pre-and Post Operation Procedures Vehicles Classified under LTO Restriction Codes 3 up to 5	Core
Module 5: Road Safety & Traffic Safety Regulation	Safety and Driving essential	D/S	ALT832303 Obey and Observe Traffic Rules and Regulations	Core
Module 6: Bus Driving - Driving Techniques	Safety and Driving essential	D/S/B	ALT832306 Drive Passenger Bus	Core
Module 7: Bus Driving Emergency/ Incident Management	Safety and Driving essential	D/S/B	ALT832304 Implement and Coordinate Accident-Emergency Procedures	Core
<b>Interim Progress Tracking</b>				
Module 8: Bus Operation - Cabin operation for boarding, a lighting: Functionality & skills and on-route	Functionality & skills	D/S/B		
Module 9: Bus Operation - Fare, Ticketing & Payment System	Functionality & skills	D/S/B		
Module 10: Bus Operation - Control System Coordination	Functionality & skills	D/S/B		

Equivalent in LTRFB		Equivalent in LTO	
Modules/ Course /Learning Material	Category	Modules/ Course /Learning Material	Category
-LTRFB Policy Terms & Conditions; -Good Manner in driving		-RO101 CDE Road Safety; -R105 CDE General Information	
-Road Safety Course drivers; -Traffic sign & Markings		RO102 CDE Road and Traffic Rules	

Proposed Modules for HBPS			Equivalent in TESDA NC III	
Modules	Category	Type of learning(Digital(D), Simulator(S), In-cab(B))	Modules	Category
<b>Partial certification</b>				
Module 11: Passenger Handling - General passenger boarding alighting	Functionality & skills	D/S/B		
Module 12: Passenger Handling - Handling Disabled Passenger	Functionality & skills/ Accessibility	D/S/B		
<b>Interim Progress Tracking</b>				
Module 13: Environmental Driving	Sustainability	D/S		
<b>Partial certification</b>				
Module 14: Passenger Management - General complaints	Functionality & skills	D/S/B		
Module 15: Passenger Management - Incident Management	Functionality & skills	D/S/B		
<b>Interim Progress Tracking</b>				
Module 17: Passenger Experiences - Road familiarisation	Functionality & skills	S/B		
Module 18: Passenger Experiences - Passenger interaction & customer service	Functionality & skills	D/S/B		
Module 19: Driver Wellness	Safety & Driving essential	D/S	ALT832309 Observe Road Health and Safety Practices	Core
<b>Partial certification</b>				
<b>Full Certification</b>				

Equivalent in LTRFB		Equivalent in LTO	
Modules/ Course /Learning Material	Category	Modules/ Course /Learning Material	Category
		RO104 CDE Other Regulation	
Road Rage and Anger Management		Road Rage and Anger Management	

CDE = Comprehensive Driver’s Education, LTRFB = Land Transportation Franchising and Regulatory Board, LTO = Land Transportation Office, NC III = National Certificate for Driving (Bus Driving), TESDA = Technical Education and Skills Development Authority.

Note: Module numbers and working titles may have changed since the mapping was performed.

Source: Ramboll.

**Table A6.2: Non-mandatory Modules for the HPBS**

Non-mandatory Modules for the HPBS						
		TESDA NCIII			LTFRB	LTFRB
		500311109	Lead Workplace Communication	Basic		
		500311110	Lead Small Teams	Basic		
		500311111	Develop and Practice Negotiation skills	Basic		
		500311112	Solve Problems Related to Work Activities	Basic		
		500311113	Use Mathematical Concepts and Techniques	Basic		
		500311114	Use Relevant Technologies	Basic		
		ALT723201	Apply Appropriate Sealant/Adhesive	Common		
		ALT311205	Interpret/Draw Technical Drawing	Common		
		ALTZ 23202	Move and Position Vehicle	Common		
		ALT311204	Perform Job Estimate	Common		
		ALT311202	Perform Mensuration and Calculation	Common		
		ALTZ 23203	Read, Interpret and Apply Specifications and Manuals ALTZ 23204 Use and Apply Lubricant/Coolant	Common		
		ALT7 23205	Perform Shop Maintenance	Common		
		ALT7 23349	Perform Minor Maintenance and Servicing on Vehicles Classified under LTO Restriction Codes 3 up to 5	Core		

HPBS = High Priority Bus System, LTFRB = Land Transportation Franchising and Regulatory Board, NC III = National Certificate for Driving (Bus Driving), TESDA = Technical Education and Skills Development Authority.

Source: Ramboll.

## ABOUT THE ASEAN AUSTRALIA SMART CITIES TRUST FUND

The ASEAN Australia Smart Cities Trust Fund (AASCTF) assists ASEAN cities in enhancing their planning systems, service delivery, and financial management by developing and testing appropriate digital urban solutions and systems. By working with cities, AASCTF facilitates their transformation to become more livable, resilient, and inclusive, while in the process identifying scalable best and next practices to be replicated across cities in Asia and the Pacific. The Trust Fund is supported by the Government of Australia through the Department of Foreign Affairs and Trade, managed by the Asian Development Bank, and implemented by Ramboll.



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