IALA MODEL COURSE

C0103-4
VTS ON-THE-JOB TRAINING INSTRUCTOR

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DOCUMENT REVISION

Revisions to this IALA Document are to be noted in the table prior to the issue of a revised document.

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December 2001	1st issue	Council 27
December 2005	Ed.1.1 Entire document	Council 35
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June 2024	Ed.3.0 Entire document. Full review to reflect IMO Resolution A.1158(32), changes in technology and the evolution of VTS Operations.	Council 80

CONTENTS

PART A   COURSE OVERVIEW

1   INTRODUCTION

IALA Model Courses have been developed to provide guidance on the level of training and knowledge needed to reach levels of competence defined by IALA. They provide IALA national members and other appropriate authorities with guidance on the training of VTS Personnel.

IALA's contribution to the development of internationally harmonized guidance for vessel traffic services is recognized in IMO Resolution A.1158(32) Guidelines for Vessel Traffic Services and the Annex to the resolution states:

- Contracting Governments are encouraged to take into account IALA standards and associated recommendations, guidelines and model courses (Section 10.4)

- VTS personnel should only be considered competent when appropriately trained and qualified for their VTS duties. This includes, inter alia:

  o satisfactorily completing generic VTS training approved by a competent authority.

  o satisfactorily completing on-the-job training at the VTS where the personnel are employed.

  o undergoing periodic assessments and revalidation training to ensure competence is maintained; and

  o being in possession of appropriate certification

IALA recommendations, guidelines and model courses specifically related to the establishment and operation of VTS include:

- Recommendation 0103 - Training and Certification of VTS personnel specifies the practices associated with the training and certification of VTS personnel to assist authorities when recruiting, training and assessing VTS personnel to ensure the harmonized delivery of vessel traffic services world-wide.

- Guideline 1156 - Recruitment, Training, and Certification of VTS Personnel states that "Model courses provided by accredited training organizations should be approved by the competent authority."

- Guideline 1014 - Accreditation of VTS Training Organizations and Approval to Deliver IALA VTS Model Courses sets out the process by which a training organization can be accredited to deliver approved VTS training courses.

- IALA model courses including:

  o Model Course C0103-1 VTS Operator Training

  o Model Course C0103-2 VTS Supervisor Training

  o Model Course C0103-3 VTS On-the-Job Training

  o Model Course C0103-4 VTS On-the-Job Training Instructor

  o Model Course C0103-5 VTS Revalidation Process for VTS Qualification and Certification

2   PURPOSE OF THE MODEL COURSE

The purpose of the model course is to assist training organizations and their teaching staff in the preparation and provision of new training courses for VTS On-the-Job (OJT) Training Instructors, or in enhancing, updating, or supplementing existing training material. It provides guidance on the level of training and knowledge needed to reach levels of competence defined by IALA to be certified as a VTS OJT Training Instructor.

It is not the intention of the model course to present instructors with a rigid 'teaching package'. Rather, this model course provides the curriculum content for the training of VTS OJT Training Instructors. It is intended to be used by accredited training organizations in preparing their C0103-4 training programmes.

3   COURSE OBJECTIVE

To successfully complete this course the student will demonstrate the requisite knowledge, skills and attitude to undertake the duties associated with the role of a VTS OJT Instructor.

This includes developing their practical skills to provide the OJT training programme at the VTS centre:

- Designing training programmes including task books and assessment materials.
- Learning teaching and instructional techniques to deliver training programmes.
- Providing feedback to learners.
- Assessing the required competence of a student against the training objectives.
- Evaluating the effectiveness and continually improving training programmes.

4   COURSE CURRICULUM OUTLINE

There are 5 modules in the model course, each of which deals with a specific subject representing a requirement or function of a VTS OJT Instructor. Each module contains a subject framework stating its scope and aims, a subject outline, learning objectives, teaching points and recommended hours.

The recommended hours are indicative and based on the assumption that the students have no or little previous knowledge of the subject. Instructors should revise as required, to address the requirements of the students to ensure the learning outcomes are achieved based on the competence levels detailed in each module (Table 1 refers). Time for assessments is in addition to the range of duration included in the model course.

Training activities, simulated exercises and assessments undertaken during the course are intended to represent the role of the VTS OJT Training Instructor and reflect scenarios or events that may be experienced in the development and implementation of VTS training programmes. No timetable is included in this model course. Working within the normal practices of the training establishment, instructors should allow time during the course for revision of course content and develop their own timetable depending on the:

- level of skills of students;
- number of persons to be trained;
- number of instructors; and
- simulator facilities and equipment available.

Table 1   Summary of C0103-4 Training

Module Title	Recommended Duration in Hours		Overview
	Presentations / Lectures	Exercises / Role Play	
1. Educational Theory	*2 to 4*	*1 to 2*	This module covers the principles of adult educational theory to support VTS OJT.
2. Learning and Teaching	*4 to 6*	*3 to 5*	This module covers learning and teaching styles, instructional techniques and adapting teaching styles for different learners.
3. Training Programme Design	*4 to 6*	*5 to 8*	This module covers analysis for training programmes, designing, developing, and implementing training.
4. Assessment and Evaluation	*3 to 5*	*3 to 5*	This module covers the role and process for assessment and evaluation of VTS OJT.
5. VTS OJT Programme	*2 to 3*	*2 to 4*	This module covers the development of a VTS OJT programme.
Total time range	15 to 24	14 to 24	*Note: Hours are based on the assumption that the students have no or little previous knowledge of the subject.*

5 ENTRY REQUIREMENTS

Every student attending a C0103-4 model course should have in-depth knowledge of the processes and procedures relating to VTS operations.

The training organization or competent authority may determine and document any additional course entry requirements.

6 RECOGNITION OF PRIOR LEARNING

It is recognized that some students may have experience, knowledge, skills, attitudes, and competencies acquired through formal or informal learning in some modules or subject elements associated with the VTS model course. In such cases, consideration should also be given to the recognition of prior learning (RPL), which may reduce the time requirement to meet the level required for certification.

IALA Guideline 1017 - Assessment for Recognition of Prior Learning in VTS Training provides further guidance assessing and recognizing the prior learning of students.

7 COURSE INTAKE - LIMITATIONS

The training organization should determine the number of students enrolled on the course and provide information on the student to staff ratio. The class/group size should allow the instructor(s) to give adequate individual attention to students as required to meet the learning objective(s).

In general, it is recommended that 8-10 students is the maximum that a single instructor can be expected to train satisfactorily to the level of competence involved. Larger numbers may be admitted depending on the method of delivery.

During practical sessions such as simulations, there may be additional restraints on class/group size. Where the use of a simulator or similar teaching aid is involved, it is recommended that no more than two students be trained simultaneously on any individual piece of equipment.

8 TRAINING STAFF REQUIREMENTS

All instructors and assessors should be appropriately qualified for the training being provided and the assessment required for the model course.

As well as instructors and assessors, additional staff may be required for the maintenance of equipment, for the preparation of materials and training areas as well as support for simulation and other practical activities.

IALA Guideline 1156 - Recruitment, Training, and Certification of VTS Personnel provides further guidance on the qualifications for instructors.

9 FACILITIES AND EQUIPMENT

The teaching aids, facilities and equipment students will utilise during the course should be fit for purpose and of a sufficient standard to reflect the training methodologies used in the course delivery. Examples of training methodologies may include:

- classroom sessions, presentations and facilitated discussion
- group based learning activities
- case studies and recordings
- remote learning (e.g. e-learning, online, distance, hybrid, blended)

- simulation training.

Simulation training, if provided, should be managed in a manner consistent with IALA Guideline 1027 in order to provide sufficient behavioural realism to allow students to acquire the knowledge and skills appropriate to the training objectives.

The training organization should provide a safe learning environment consistent with any national health and safety requirements.

10   DELIVERY OF THE MODEL COURSE

To make effective use of the model course, training staff should review the course outline, including the competence tables for each module, and prepare a detailed teaching syllabus.

The instructor should take into consideration existing knowledge, skills, and attitudes of students to support the assessment and recognition of prior learning. A gap analysis should be carried out to identify any differences between the level of skills and competencies of the student and those identified within the curriculum tables, and teaching strategies to address these gaps should be implemented.

All VTS training should be:

1   Structured in accordance with written programmes, including such methods and means of delivery, procedures and course material as are necessary to achieve the prescribed standard of competence; and,

2   Conducted, monitored, assessed, and supported by qualified persons.

Teaching programmes should ensure that all listed elements are addressed in some manner, and that this is clearly documented.

If students are required to meet additional requirements, then the module objectives, scope and content for each subject may be adjusted to ensure the additional elements are covered. All changes to the training should be clearly documented.

The presentation of concepts and methodologies may be repeated as necessary in various ways until the instructor is satisfied that the student has attained the required competence in each subject.

Thorough preparation is key to successful implementation of the course.

10.1   Developing course content

The modular presentation enables the instructor to adjust the course content to suit the student intake and provide any revisions of the subject objectives as required. The instructor should develop lesson plans and detailed learning objectives based on the competence tables, references, and materials as suggested (see Part B).

It is not intended that the modules be presented in the order provided in this model course. It is expected that, to address effective training and learning methodologies, the content of modules will be grouped as appropriate for the learning environment. Presentation of the material should be tailored to reflect specific training objectives and include practical exercises, assessments, etc. When developing lesson plans, the instructor should use a teaching method or combination of methods that will ensure students can achieve the required learning objectives.

Depending on the student intake, the recommended hours may need to be adjusted as necessary. For example, it is normal for different students to require different lengths of time to cover the same content, and minor adjustments may be needed to the course timetable.

10.2   Competence levels

To assist in the development of lesson plans, five levels of competence are used in the model courses for VTS personnel. Learning objectives are provided within the model course. Verb taxonomies have been provided to assist with the creation of detailed learning objectives (Table 2 refers).

10.3   Competence tables, teaching aids and references

Detailed competence tables are provided, including competence levels and proposed teaching aids and references. The training materials prepared (e.g. course notes, course presentations and reference documents etc) should be consistent with IALA standards and up to date taking into account recent changes and industry developments. These training materials should be available to the student for their reference.

Where remote learning delivery is proposed, training organizations should consider the necessary adjustments that may be required.

10.4   Training course references

Course development and delivery should take into consideration the following references. Where required, additional references are identified in specific modules.

- IMO Resolution A.1158(32) – Guidelines for Vessel Traffic Services
- IMO model course 6.09 – Training course for instructors
- IMO model course 6.10 – Train the simulator trainer and assessor
- IMO model course 3.12 – Assessment, examination and certification of seafarers
- IALA S1040 Vessel Traffic Services
- IALA S1050 Training and Certification
- IALA R0103 (V-103) Training and Certification of VTS Personnel
- IALA G1089 Provision of a VTS
- IALA G1132 VTS Voice Communications and Phraseology
- IALA G1141 Operational Procedures for Delivering VTS
- IALA G1156 Recruitment, Training and Certification of VTS Personnel
- IALA Model Courses on VTS:
    - C0103-1 (VTS Operator Training)
    - C0103-2 (VTS Supervisor Training)
    - C0103-3 (VTS On-the-job Training (OJT))
    - C0103-5 (VTS Recurrent, Refresher and Adaptation Training)

Table 2   Competence Level Taxonomy for VTS Training

Level	Knowledge and/or Attitude	Skill	Verbs (examples)
Level 1 Work of a routine and predictable nature generally requiring supervision	Comprehension Understands facts and principles; interprets verbal/written material; interprets charts, graphs and illustrations; estimates future consequences implied in data; justifies methods and procedures	Guided response The early stages in learning a complex skill and includes imitation by repeating a demonstrated action using a multi-response approach (trial and error method) to identify an appropriate response	Arrange, define, list, locate, label, identify, select
Level 2 More demanding range of work involving greater individual responsibility. Some complex/non-routine activities	Application Applies concepts and principles to new situations; applies laws and theories to practical situations; demonstrates correct usage of methods or procedures	Autonomous response The learned responses have become habitual, and the movement is performed with confidence and proficiency	Comply (with), describe, display, give examples, recognise, operate, perform (an action), participate in
Level 3 Skilled work involving a broad range of work activities. Mostly complex and non-routine	Analysis Recognises un-stated assumptions; recognises logical inconsistencies in reasoning; distinguishes between facts and inferences; evaluates the relevancy of data; analyses the organizational structure of work	Complex observable response The skilful performance of acts that involve complex movement patterns. Proficiency is demonstrated by quick, smooth, accurate performance. The accomplishment of acts at this level includes a highly co-ordinated automatic performance	Analyse, apply, categorise, classify, compare, differentiate, explain, justify, operate, solve
Level 4 Work that is often complex, technical and professional with a substantial degree of personal responsibility and autonomy	Synthesis Integrates learning from different areas into a plan for solving a problem; formulates a new scheme for classifying objects or events	Adaptation Skills are so well developed that individuals can adapt rapidly to special requirements or problem situations	Adapt, coach, construct (build), demonstrate, devise, interpret, intervene, organize, plan, predict, resolve, respond to, support (as in teamwork), use
Level 5 Complex techniques across wide and often unpredicted variety of contexts. Professional/senior managerial work	Evaluation Judges the adequacy with which conclusions are supported by data; judges the value of a work by use of internal criteria; judges the value of a work by use of external standards of excellence	Creation The creation of new practices or procedures to fit a particular situation or specific problem and emphasizes creativity based upon highly developed skills	Construct, compose, coordinate, create, criticise, draw conclusion, evaluate, formulate, improve, judge, modify, synthesize

10.5 Course review and updating

The course content should be reviewed on a regular basis to ensure it reflects the current IALA standards, recommendations, guidelines and consider recent changes and industry developments.

On conclusion of the course, a review should be undertaken based on course feedback and observations during course delivery to identify ongoing improvements and training materials that may need updating.

11 ASSESSMENT

Student progress should be continually monitored and assessed, and regular reviews undertaken. Any problems that may arise should be addressed so that the student can attain the required levels of competence and has the opportunity to meet the course objectives.

Assessments should reflect the level of competence required, as provided in the competence tables for each module.

The training organization should determine the assessment methods to be used to ensure competence levels have been attained for each subject of the module course. In addition, the training organization should have procedures in place to address instances where the student is unable to attain the required competence.

Assessment results should be recorded and retained in accordance with national and/or organizational requirements as evidence to indicate the competence levels that have been attained for each subject of the model course.

12 COURSE CERTIFICATES

A course certificate should be issued by the training organization where a student:

- demonstrates they have the theoretical and practical knowledge, and

- has passed the appropriate assessments to ensure the student has met the required competency as outlined in this model course.

13 ACRONYMS AND ABBREVIATIONS

ADDIE	Analyse, Design, Develop, Implement and Evaluate (training programme)
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities - AISM
IMO	International Maritime Organization
ISD	Instructional System Design (training programme)
OJT	On-the-Job Training
OJTI	On-the-Job Training Instructor
RPL	Recognition of Prior Learning
SMART	Specific, Measurable, Achievable, Realistic (Relevant) and Time-Bound (training objectives)
VACSR	Valid, Authentic, Current, Sufficient, Reliable (training assessments)
VTS	Vessel Traffic Services

PART B   MODULES

MODULE 1   Educational Theory

1.1   SUBJECT FRAMEWORK

1.1.1 Scope

This module covers the principles of adult educational theory, including learning strategies and teaching techniques for OJT training at the VTS centre.

1.1.2 Objective of Module 1

On completion of the module the student will:

- Describe learning theories and the goals of learning.
- Explain how adults learn.
- Explain how the IALA competence levels are implemented in VTS OJT.

1.2   SUBJECT OUTLINE OF MODULE 1

Table 3   Subject Outline – Educational Theory

Element	Recommended Competence Level	Recommended Hours	
		Presentations and Lectures	Exercises and Role Play
Learning Theory		**1 to 2**	**1 to 1.5**
Different learning theories	1		
Experiential / Discovery learning theories	3		
Goals of learning	3		
Adult learning		**0.5 to 1**	**0 to 0.5**
Qualities of the adult learner	2		
Adult learner strategies for VTS OJT	3		
Training Taxonomies		**0.5 to 1**	**0**
Cognitive, psychomotor, and affective	2		
IALA competence levels	2		
	Total time range	*2 to 4*	*1 to 2*

1.2.1 Detailed Competence table for Module 1 – Educational Theory

Table 4   _Competence Table – Educational Theory_

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
1.1	**Learning Theories**			
1.1.1	_Describe different learning theories._	1.1.1.1	Andragogy and Pedagogy	2
		1.1.1.2	Adult learning theories such as: • Behaviourist • Cognitive • Experiential	2
1.1.2	_Explain experiential / discovery learning._	1.1.2.1	Experiential learning (Kolb)	3
		1.1.2.2	Discovery learning (Piaget)	3
1.1.3	_Explain the goals of learning._	1.1.3.1	Change in knowledge, skills, and attitude	3
		1.1.3.2	Intentional, incidental, and accidental learning	3
1.2	**Adult learning**			
1.2.1	_Describe the qualities of the adult learner._	1.2.1.1	Cycles of learning	2

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
		1.2.1.2	Principles of adult learning: • Self-directed • Practical; Goal oriented; immediacy/relevancy • Life experiences; need to feel respected • Resistant to change • Motivation; Desire to learn • Responsibilities; time limitations • Expectations	2
1.2.2	*Explain adult learning strategies for VTS OJT.*	1.2.2.1	Learning pyramid	3
		1.2.2.2	Reasonable adjustments	3
		1.2.2.3	Connecting known to unknown	3
		1.2.2.4	Inductive and deductive learning	3
1.2	**Training taxonomies**			
1.2.1	*Describe the different training taxonomies.*	1.2.1.1	Three taxonomies: • Cognitive (knowledge) • Psychomotor (skills) • Affective (attitude)	2
1.2.2	*Describe the IALA competence levels.*	1.2.2.1	5 competence levels • Level 1 – Comprehension / Guided response • Level 2 – Application / Autonomous response • Level 3 – Analysis / Complex observable response • Level 4 – Synthesis / Adaptation	2

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
			• Level 5 – Evaluation / Creations	
1.2.3	*Explain the IALA competence levels in a VTS OJT programme.*	1.2.3.1	Competence tables in C0103-3 (VTS OJT)	3
		1.2.3.2	Role of IALA competence levels in designing VTS OJT.	3

MODULE 2   Learning and Teaching

2.1   SUBJECT FRAMEWORK

2.1.1 Scope

This module covers the learning and teaching styles for different learners.

2.1.2 Objective of Module 2

On completion of the module the student will:

- Describe learning styles and preferences.

- Explain different instructional techniques.

- Identify the qualities of an effective instructor.

- Explain the elements of a safe learning environment.

2.2   SUBJECT OUTLINE OF MODULE 2

Table 5   Subject Outline – Learning and Teaching

Element	Recommended Competence Level	Recommended Hours	
		Presentations and Lectures	Exercises and Role Play
Learning styles and preferences		**0.5 to 1**	**0.5 to 1**
Different learning styles	1		
Barriers to learning	2		
Impact of learning style on teaching styles	3		
Instructional techniques		**2 to 2.5**	**1.5 to 2.5**
Different instructional techniques	1		
Techniques suitable to support learning	2		
Coaching and Mentoring	3		
Scenarios / case studies	2		
Simulation in VTS OJT	3		
Effective instructors		**0.5 to 1**	**0**
Qualities of effective instructors	2		
Learning environment		**1 to 1.5**	**1 to 1.5**
Safe learning environment	3		
Learning environment to support adult learners	2		
	Total time range	*4 to 6*	*3 to 5*

2.2.1 Detailed Competence table for Module 2 – Learning and Teaching

Table 6   Competence Table – Learning and Teaching

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
2.1	**Learning Styles**			
2.1.1	*Identify preferred individual learning styles.*	2.1.1.1	Visual, Auditory, Kinaesthetic learners	1
		2.1.1.2	Social and Solitary learners	1
		2.1.1.3	Logical and Intuitive learners	1
		2.1.1.4	Reflector, Activist, Pragmatist, Theorist	1
2.1.2	*Describe options to recognise and overcome barriers to learning.*	2.1.2.1	Student barriers to learning: • Perception • Attention • Memory • Motivation	2
		2.1.2.2	Instructor barriers to learning: • Biases • Expectations of the instructor from the learning group (Pygmalion effect) • Communication skills	2
		2.1.2.3	Strategies to address barriers to learning	2
2.1.3	*Explain the impact of learning styles on teaching styles.*	2.1.3.1	Biases and preferences	3
		2.1.3.2	Adapting teaching style to learners	3

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
2.2	**Instructional Techniques**			
2.2.1	*Identify different instructional techniques.* .	2.2.1.1	Different instructional techniques such as: - Lecture - Presentation - Brainstorming - Case Study	1
		2.2.1.2	Familiarization activities such as site visits to allied services, shipboard voyages in the VTS area, equipment site, simulation, trial and error, role play	1
		2.2.1.3	Remote learning (e-learning, distance, hybrid, blended)	1
2.2.2	*Describe techniques suitable for VTS OJT.*	2.2.2.1	Active vs Passive	2
		2.2.2.2	Techniques such as: - OJT Task books - Job shadowing - Presentations - Familiarization activities such as site visits to allied services, shipboard voyages in the VTS area, equipment site, simulation, trial and error, role play - Games to support learning - Coaching - Role-playing - Case studies - Simulation	2
2.2.3		2.2.3.1	Instructor and facilitator	3

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
	Explain the difference between coaching and mentoring.	2.2.3.2	Coaching and mentoring in VTS OJT	3
		2.2.3.3	Group vs individual teaching	3
2.2.4	*Describe scenarios and case studies.*	2.2.4.1	Elements of a case study / learning scenario: • Relevant topic / report • Learning objective • Case study materials (report, summary, activity sheet, simulation) • Implementation • Outcomes	2
		2.2.4.2	Factors to support learning: • Complexity • Perspectives (multiple viewpoints) • Considerations (ethical, legal, operational) • Documentation and analysis • Opportunity for continuous improvement	2
2.2.5	*Explain the use of simulation in VTS OJT.*	2.2.5.1	Training activities such as: • Interaction for seldom seen scenario • Element of case study	3
		2.2.5.2	Assessment activities such as: • Assess on seldom seen scenarios • Confirming competence	3
2.3	**Effective Instructor**			
2.3.1	*Describe the qualities of an effective instructor.*	2.3.1.1	Technical competence - knowledge of / qualification for content being presented	2

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
		2.3.1.2	Instructional competence • Knowledge of educational theory • Prepare training sessions • Adapting to address learner needs while meeting objectives • Assessment techniques • Coaching • Managing dynamics / productive and disruptive behaviours • Communication skills – active listening, questioning techniques	2
		2.3.1.3	Human Factors (coordination, interactions) • Professional • Passionate • Patient • Supportive • Empathetic	2
		2.3.1.4	Four levels of competence and relationship to training: • Unconscious competence • Conscious competence • Conscious incompetence • Unconscious incompetence	2
2.4	**Learning Environment**			
2.4.1	*Explain what makes a safe learning environment.*	2.4.1.1	Maslow's hierarchy of needs	3
		2.4.1.2	Psychologically safe environments	3
		2.4.1.3	Physically safe environments	3

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
		2.4.1.4	Adapting within an operational environment	3
2.4.2	*Describe learning environments that can be expected within a VTS OJT.*	2.4.2.1	Limitations and challenges	2
		2.4.2.2	Opportunities	2
		2.4.2.3	Physical, virtual and hybrid environments	2
		2.4.2.4	How to prepare the learning environment: • Physical space (VTS centre, breakout rooms, offsite) • Online space • Environmental conditions (temperature, light, sound levels)	2

MODULE 3   Training Programme Design

3.1   SUBJECT FRAMEWORK

3.1.1 Scope

This module covers the elements of designing a programme, with a focus on the Analysis, Design, Develop and Implement aspects.

3.1.2 Objective of Module 3

On completion of the module the student will:

- Identify training programme analysis in VTS.
- Design a training programme.
- Develop training objectives.
- Prepare and deliver a learning session.

3.2   SUBJECT OUTLINE OF MODULE 3

Table 7   Subject Outline – Training Programme Design

Element	Recommended Competence Level	Recommended Hours	
		Presentations and Lectures	Exercises and Role Play
Analysis for Training Programmes		**0.5**	**0**
Training analysis process in VTS OJTI	1		
Training Programme Design		**1 to 1.5**	**1 to 1.5**
Training programme design methodologies	2		
Elements of objectives	1		
Developing objectives	5		
Developing Training		**1.5 to 2**	**2 to 2.5**
Instructional techniques to support learning	4		
Developing a learning session	4		
Implementing Training		**1 to 2**	**2 to 4**
Presenting a learning session	4		
Teaching styles for different learners	4		
Experiential learning and VTS OJT	4		
	Total time range	*4 to 6*	*5 to 8*

3.2.1 Detailed Competence table for Module 3 – Training Programme Design

Table 8   *Competence Table – Training Programme Design*

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
3.1	**Analysis for Training Programme Design**			
3.1.1	*Identify the objectives of VTS OJT.*	3.1.1.1	C0103-1	1
		3.1.1.2	C0103-2	1
		3.1.1.3	C0103-3	1
3.2	**Training Programme Design**			
3.2.1	*Describe approaches to training programme design.*	3.2.1.1	Instruction System Design (ISD) / ADDIE (Analyse, Design, Develop Implement, Evaluate)	2
		3.2.1.2	Difference between a curriculum (combination of topics) and a syllabus (portions of topic in a particular subject)	2
		3.2.1.3	Elements of a teaching syllabus: • Objectives • Teaching methodology • Assessment and evaluation methodology • Lesson plan / course content • Exercises / activities	2
3.2.2	*Identify the elements of a learning objective.*	3.2.2.1	Hierarchy of objectives: • Programme objective • Terminal objective • Enabling objective	1

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
			• Teaching points	
		3.2.2.2	Elements of objectives: • Performance • Condition • Standard	1
		3.2.2.3	"SMART" objectives (specific, measurable, achievable, relevant, time-bound)	1
3.2.3	*Construct learning objectives for a VTS OJT programme.*	3.2.3.1	Using IALA competence / action verbs	5
		3.2.3.2	Confirming all elements of the objective are included (performance, condition, standard)	5
		3.2.3.3	Confirming objective is 'SMART'	5
3.3	**Developing Training**			
3.3.1	*Plan a VTS OJT learning session.*	3.3.1.1	Plan a lesson: • Learning objectives • Training approach / match training to session objective • Assessment and evaluation • Training aids / reference material • Timing / time limit	4
		3.3.1.2	Develop a lesson plan	4
		3.3.1.3	Prepare for one-on-one presentation	4
		3.3.1.4	Prepare for group presentation (minimum of 2 trainees)	4
3.3.2	*Develop a case study.*	3.3.2.1	Case study to reflect all elements and factors to support learning	4

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
3.4	**Implementing Training**			
3.4.1	*Demonstrate a VTS OJT learning session.*	3.4.1.1	Use identified methodology	4
		3.4.1.2	One-on-one environment	4
		3.4.1.3	Group presentation (minimum of 2 trainees)	4
3.4.2	*Adapt teaching styles for different learners.*	3.4.2.1	Link learning styles with instructional techniques	4
		3.4.2.2	Options to adapt teaching styles for different learners	4
3.4.3	*Adapt experiential / discovery learning to VTS OJT.*	3.4.3.1	Design activities based on experiential learning	4
		3.4.3.2	Brief / debrief of experiential learning activities	4
		3.4.3.3	Link experiential learning to case studies / scenarios / simulation	4

MODULE 4   Assessment and Evaluation

4.1   SUBJECT FRAMEWORK

4.1.1 Scope

This module covers the processes to assess learning outcomes and the evaluation of VTS OJT training.

4.1.2 Objective of Module 4

On completion of the module the student will:

- Prepare training assessments.
- Provide feedback to learners.
- Evaluate training programmes.

4.2   SUBJECT OUTLINE OF MODULE 4

Table 9   Subject Outline – Assessment and Evaluation

Element	Recommended Competence Level	Recommended Hours	
		Presentations and Lectures	Exercises and Role Play
Methods of assessment		**1.5 to 2.5**	**2 to 3**
Purpose of an assessment	3		
Qualities of a good assessment	1		
Methods of assessing	1		
Tools for assessing	1		
OJT task books	4		
Feedback to learners	4		
Training Records		**0.5 to 1**	**0.5 to 1**
Training records / tracking progress	4		
Course Evaluation		**1 to 1.5**	**0.5 to 1**
Levels of evaluation	3		
Course review and evaluation	2		
	Total time range	*3 to 5*	*3 to 5*

Table 10   Competence Table – Assessment and Evaluation

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
4.1	**Methods of Assessment**			
4.1.1	*Explain the purpose of evaluation in training.*	4.1.1.1	Purpose of competency-based assessment: • Assessing knowledge, skills, attitudes • Continuous improvement • Confirming competence against objectives (competence levels)	3
		4.1.1.2	Clarification versus evaluation	3
		4.1.1.3	Roles and responsibilities of assessors	3
		4.1.1.4	Situations where competence unable to be attained / unsatisfactory assessment outcome	3
4.1.2	*List the qualities of a good assessment.*	4.1.2.1	VACSR model: • **V**alid • **A**uthentic • **C**urrent • **S**ufficient • **R**eliable	1

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
		4.1.2.2	Assessment plan: - Details of assessment tools - Captures evidence against objective (competence level) - Reviewed and verified - Used for continuous improvement - Process to achieve consistency between assessors	1
4.1.3	*Identify methods for assessing learning.*	4.1.3.1	Methods such as: - Formative / Summative - Written assessments - Oral assessments - Direct / indirect observation - Supplementary evidence	1
4.1.4	*Identify tools for assessing learning.*	4.1.4.1	Tools such as: - Tests/quizzes - Assignments - Rubrics and checklists - Demonstration and observation - Task books - Portfolios (record of learning)	1
4.1.5	*Create a section of an OJT Task Book.*	4.1.5.1	Learning objectives for task book	4
		4.1.5.2	Tasks to include in task book	4
		4.1.5.3	Presentation / layout of task book	4
4.1.6		4.1.6.1	Purpose and timing	4

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
	Demonstrate the provision of feedback to learners.	4.1.6.2	Constructive feedback	4
		4.1.6.3	Debriefing technique	4
4.2	**Training Records**			
4.2.1	*Explain the role of records of training to tracking progress of learners.*	4.2.1.1	Importance of training records	3
		4.2.1.2	Types of training records	3
		4.2.1.3	Use of training records for analysis and improvement	3
		4.2.1.4	Organizational requirements for training records (ISO / Training Management System)	3
		4.2.1.5	Authorising access / protection of records	3
4.2	**Course Evaluation**			
	Describe the levels of training evaluation.	4.2.1.1	Kirkpatrick's four levels: • Level 1 - Reaction • Level 2 - Learning • Level 3 - Transfer (behaviour) • Level 4 - Results (impact)	2
4.2.2	*Describe how to carry out a course review and evaluation.*	4.2.1.2	Instructional design addressing Kirkpatrick levels 1 and 2	2
		4.2.1.3	Promoting organizational assessment for Kirkpatrick levels 3 and 4	2
		4.2.3.1	Analysis of results for individual course	2
		4.2.3.2	Satisfaction surveys	2
		4.2.3.3	Trend analysis (over multiple courses)	2
		4.2.3.4	Course maintenance – maintaining relevancy of materials and records	2

MODULE 5   VTS OJT Training Programme

5.1   SUBJECT FRAMEWORK

5.1.1 Scope

This module covers the implementation of a VTS OJT Training Programme.

5.1.2 Objective of Module 5

On completion of the module the student will:

- Explain the expectations and outcomes of VTS OJT.

- Prepare or adapt a VTS OJT programme outline.

5.2   SUBJECT OUTLINE OF MODULE 5

Table 11   Subject Outline – VTS OJT Programme

Element	Recommended Competence Level	Recommended Hours	
		Presentations and Lectures	Exercises and Role Play
OJT Training in VTS Training		**1 to 1.5**	**1 to 1.5**
The role of OJT in VTS Training	2		
Objectives of OJT	1		
Expectations and outcomes of OJT	3		
OJT Programme		**1 to 1.5**	**1 to 2.5**
Consideration to develop/deliver OJT	3		
Providing OJT	4		
	Total time range	*2 to 3*	*2 to 4*

5.2.1 Detailed Competence table for Module 5 – VTS OJT Programme

Table 12   Competence Table – VTS OJT Programme

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
5.1	**OJT Training in VTS**			
5.1.1	*Describe the role of OJT in VTS Training.*	5.1.1.1	The OJT instructor	2
		5.1.1.2	VTS Personnel to support training	2
5.1.2	*Explain expectations and outcomes of OJT.*	5.1.2.1	Realistic expectations / competencies required	3
		5.1.2.2	Achievable results	3
5.1.3	*Describe options to support the trainee in VTS OJT.*	5.1.3.1	Instructor/trainee relationship	2
		5.1.3.2	Operational instructor (instructor/trainee to colleagues)	2
5.2	**OJT Programme**			
5.2.1	*Explain considerations for developing and delivering OJT.*	5.2.1.1	Trainee prior knowledge and experience	3
		5.2.1.2	Integration of C0103-1 / C0103-2 with C0103-3	3
		5.2.1.3	Availability / considerations for: • Time – course preparation / course delivery • Facilities • Safety and security • Personnel	3
5.2.2	*Prepare a VTS OJT Programme outline.*	5.2.2.1	Create a VTS training programme outline by either: • Preparing a new programme or • Revising an existing programme	4

Element	Session Objective	Sub-element	Subject Elements	Level of Competence
		5.2.2.2	Adjust to address considerations for developing and delivering OJT	4