Document Revisions

Comments on this document, as a prospective template for Model Courses, would be appreciated by the TCM

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**IALA Model Course ####**

**On**

**???????**

**Edition 1**

**[Date issued]**

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

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| **Date** | **Page / Section Revised** | **Requirement for Revision** |
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|  |  |  |

Table of Contents

[Document Revisions 1](#_Toc302300798)

[Table of Contents 3](#_Toc302300799)

[Index of Tables 4](#_Toc302300800)

[Index of Figures 4](#_Toc302300801)

[Foreword 5](#_Toc302300802)

[PART A – COURSE OVERVIEW 6](#_Toc302300803)

[1 Overview 6](#_Toc302300804)

[2 Purpose of the Model Course 6](#_Toc302300805)

[3 USE OF THE MODEL COURSE 6](#_Toc302300806)

[PART B – DELIVERY OF THE MODEL COURSE 7](#_Toc302300807)

[1 INTRODUCTION 7](#_Toc302300808)

[2 COURSE MODULES 7](#_Toc302300809)

[3 SUBJECT OUTLINE 8](#_Toc302300810)

[4 DETAILED TEACHING SYLLABUS 8](#_Toc302300811)

[5 PRESENTATION 8](#_Toc302300812)

[6 EVALUATION OR ASSESSMENT OF THE COURSE PARTICIPANTS 8](#_Toc302300813)

[7 IMPLEMENTATION 9](#_Toc302300814)

[8 VALIDATION 9](#_Toc302300815)

[PART C – COURSE FRAMEWORK 10](#_Toc302300816)

[1 INTRODUCTION 10](#_Toc302300817)

[2 ENTRY LEVEL REQUIREMENTS FOR A LEVEL 1 MANAGER 10](#_Toc302300818)

[3 COURSE INTAKE – LIMITATIONS 10](#_Toc302300819)

[4 TRAINING STAFF REQUIREMENTS 11](#_Toc302300820)

[4.1 Course Instructors 11](#_Toc302300821)

[4.2 Course Supervisors and Assessors 11](#_Toc302300822)

[5 TEACHING FACILITIES AND EQUIPMENT 11](#_Toc302300823)

[PART D – GUIDELINES FOR INSTRUCTORS 12](#_Toc302300824)

[1 INTRODUCTION 12](#_Toc302300825)

[2 CURRICULUM 12](#_Toc302300826)

[3 EVALUATION AND ASSESSMENT 14](#_Toc302300827)

[PART E – COURSE MODULES 16](#_Toc302300828)

[MODULE 1 INTERNATIONAL ORGANISATIONS AND LAW OF THE SEA 17](#_Toc302300829)

[MODULE 2A NAUTICAL KNOWLEDGE (GENERAL) 19](#_Toc302300830)

[MODULE 2B POSITION; NAVIGATION; TIMING AND METEOROLOGY 19](#_Toc302300831)

[MODULE 3A AtoN PROVISION, DESIGN AND MANAGEMENT 23](#_Toc302300832)

[MODULE 3B MAINTENANCE; CONTRACTS; ENVIRONMENTAL MATTERS; HISTORIC LIGHTHOUSES AND HUMAN RESOURCE ISSUES 23](#_Toc302300833)

[MODULE 4A TECHNICAL FUNCTIONS – VISUAL AtoN 28](#_Toc302300834)

[MODULE 4B ECHNICAL FUNCTIONS – RADIO AtoN 28](#_Toc302300835)

[MODULE 4C VTS and ROUTEING MEASURES 28](#_Toc302300836)

[MODULE 4D SOUND SIGNALS; COMMUNICATIONS; e-NAVIGATION; TIDE GAUGES; STRUCTURES; REMOTE MONITORING AND CONTROL 28](#_Toc302300837)

[MODULE 5 POWER SUPPLY 35](#_Toc302300838)

[ANNEX A TRAINING NEEDS ANALYSIS – EXAMPLE FORMAT 37](#_Toc302300839)

[1 Introduction 37](#_Toc302300840)

[2 The Syllabus 37](#_Toc302300841)

[3 Analysis of Existing Competencies 37](#_Toc302300842)

[4 Lecture Planning. 38](#_Toc302300843)

[5 Preparation of Test Papers. 38](#_Toc302300844)

[6 Documentation. 38](#_Toc302300845)

[7 Training Feedback and Analysis. 38](#_Toc302300846)

Index of Tables

[Table 1 Levels of Competence 9](#_Toc302298774)

[Table 2 Example Course Outline Planning Programme 14](#_Toc302298775)

[Table 3 Model Course Outline 17](#_Toc302298776)

[Table 4 Detailed Teaching Syllabus Module 1 19](#_Toc302298777)

[Table 5 Detailed Teaching Syllabus Module 2A 21](#_Toc302298778)

[Table 6 Detailed Teaching Syllabus for Module 2B 23](#_Toc302298779)

[Table 7 Detailed Teaching Syllabus for Module 3A 25](#_Toc302298780)

[Table 8 Detailed Teaching Syllabus for Module 3B 27](#_Toc302298781)

[Table 9 Detailed Teaching Syllabus for Module 4A 31](#_Toc302298782)

[Table 10 Detailed Teaching Syllabus for Module 4B 33](#_Toc302298783)

[Table 11 Detailed Teaching Syllabus for Module 4C 34](#_Toc302298784)

[Table 12 Detailed Teaching Syllabus for Module 4D 35](#_Toc302298785)

[Table 13 Detailed Teaching Syllabus for Module 5 37](#_Toc302298786)

[Table 14 Example of Participant Training Needs 39](#_Toc302298787)

Index of Figures

[Figure 1 Title required 4](#_Toc216488874)

Foreword

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) recognises that training in all aspects of Aids to Navigation (AtoN) service delivery, from inception through installation and maintenance to replacement or removal at the end of a planned life-cycle, is critical to the consistent provision of that AtoN service.

Taking into account that under the SOLAS Convention, Chapter 5, Regulation 13, paragraph 2; Contracting Governments, mindful of their obligations published by the International Maritime Organisation, undertake to consider the international recommendations and guidelines when establishing aids to navigation, including recommendations on training and qualification of personnel in charge of AtoN services, IALA has adopted Recommendation E-141 on Standards for Training and Certification of AtoN personnel.

Mindful of the desire to ensure conformance with Recommendation E-141, IALA has developed [or is developing] Guidelines for the Accreditation of AtoN training. This includes accreditation for existing model training courses for personnel responsible for Vessel Traffic Services V-103/1 – 4.

To complement existing model courses; IALA has developed Model Course #-###/# for AtoN personnel having Level 1 managerial functions which is intended to be conducted by an Accredited Training Organisation approved by a Competent Authority.[[1]](#footnote-1) To ensure commonality, Model Course #-###/# has been produced in a similar format adopted for VTS model courses. Additional AtoN model courses may be developed as required.

This model course is intended to provide national members and other appropriate authorities charged with the provision of AtoN services with specific guidance on the training of ????. Assistance in implementing this and other model courses may be obtained through IALA at the following address:

The Secretary General

IALA Tel: (+) 33 34 51 70 01

10 rue des Gaudines, 78100 Fax: (+) 33 34 51 82 05

Saint Germain-en-Laye e-mail: [contact@iala-aism.org](mailto:contact@iala-aism.org)

France internet: [www.iala-aism.org](http://www.iala-aism.org)

PART A – COURSE OVERVIEW

# Overview

IALA recommends that Training Organisations and other training providers utilise model courses concerned with the provision of AtoN services, including VTS, in accordance with IALA Recommendation E-141 and Guideline #### - Accreditation of AtoN Training [to incorporate Guideline 1014 when published].

# Purpose of the Model Course

The purpose of this model course is to assist maritime training organisations and their teaching staff with the preparation and introduction of new training courses for personnel concerned with AtoN service provision; or in enhancing, updating or supplementing existing training material where the quality and effectiveness of the training courses may thereby be improved.

The knowledge, skills and dedication of model course instructors are the key elements enabling those being trained (the participants) to acquire the necessary level of competence; that is the ability to perform defined tasks or duties effectively. It is not the intention of this model course programme to restrict instructors in the manner in which they deliver their lectures, particularly as the cultural backgrounds of the participants may vary considerably from country to country.

# USE OF THE MODEL COURSE

The complete course comprises five modules; some of them divided into two or more parts. Each module covers a specific subject or area of knowledge in which AtoN managers or engineers are required to have competence. Each module is based on a subject framework which states its scope, aims and levels of competency to be acquired. The main subject in each module is sub-divided into subject elements and sub-elements. The sub-elements form the detailed syllabus which takes account of IALA Recommendations and Guidelines and information contained in the NAVGUIDE Manual.

To use the model course, a Training Organisation is advised to adopt a Training Management System which analyses the detailed syllabus and determines the entry standard for participants undertaking the training[[2]](#footnote-2). Additional foundation training in some areas may be required to bring participants to a common entry level. Similarly some participants with existing competencies may not require to attend each lecture. An example template for training needs analysis is at ANNEX A.

Because the majority of IALA publications are written in English [or French], it is recommended that this model course be taught primarily using the English [or French] language. Explanations and clarifications can be presented in regional languages if required with additional time allocated during lesson planning.

PART B – DELIVERY OF THE MODEL COURSE

# INTRODUCTION

Body text

* Bullet;
* Bullet.

Training staff are recommended to review initially the course outline and detailed syllabus for each main subject heading. A training needs analysis process should then be conducted for each participant based on academic qualifications; skills and competencies acquired prior to the model course and other relevant experience. This should lead to the identification of where additional foundation training (including language training) may be required or where specific training in some sub-elements can be deleted from the final course programme.

When considering whether some sub-elements can be deleted, participants with previous experience or knowledge in nautical or engineering fields which are not necessarily directly related to AtoN management should be tested formally using a simple (short answer) aural or written question paper based on specific modules in which early competencies may have been acquired. This will determine whether some or all of the participants with previous experience can be excused from some modules or lectures. Such participants will however be expected to sit the complete final assessment paper for the relevant modules to ensure that a common standard in maintained.

Successful completion of this model course leading to the award of an IALA AtoN Level 1 Certificate preferably should be considered as the minimum competency level for personnel with responsibilities for the management of AtoN service provision. Career development training and experience, both within the Organisation and internationally is encouraged so that it forms part of the process towards middle and senior Management of AtoN services.

# COURSE MODULES

A modular system enables the Training Organisation to tailor each course to match the results of the training needs analysis. Having determined what needs to be taught to whom, instructors would produce lesson plans which match the detailed syllabus for each module. Sub-elements for which competency has already been demonstrated through, for example, documented Accredited Prior Learning (APL), can be deleted. Lesson plans shown in Part E of the document assume that all participants will receive instruction in all sub-elements of the complete syllabus. IALA reference publications that the instructor may wish to use are listed under each modular subject element. National Training Organisations can add local publications and training aids as appropriate.

The level of competence required from ?? is shown for each element or sub-element as required. These are graded from level 1 (basic understanding) to level 4 (detailed understanding). A further higher level 5 is reserved for senior management. Details are at Table 1 below.

# SUBJECT OUTLINE

A subject outline for each module is shown in tabular form in Part E of this document. This lists the minimum recommended level of competence for each subject element or sub-element. Sub-elements have been grouped so that training covering them might reasonably be delivered in a 40 minute lecture, assuming a standard entry level based on training needs analysis and a common standard of language comprehension for all participants.

A standard 40 minute lecture has been selected so that a 20 minute interval can be allocated between lectures. This should permit instructors (having reviewed the training objectives of each element and the particular needs of participants) to adjust timing to match local circumstances.

1. Levels of Competence

|  |  |  |  |
| --- | --- | --- | --- |
| **Level** | **Learning Outcome** | **Instructional Objectives** | **Required skills** |
| 1 | The conduct of routine tasks with some supervision | A **basic** understanding of facts and principles | First stage in acquiring competency of a complex skill. Appropriate responses are identified through trial and error |
| 2 | The conduct of routine tasks unsupervised and some more complex tasks under guidance | A **satisfactory** understanding of theoretical concepts and principles so that they can be applied in practice | Correctly acquired responses have become habitual. Actions can be performed confidently and efficiently |
| 3 | The skilful conduct of many complex and non-routine tasks | A **good** understanding of the subject matter and its interaction with others leading to an analytical distinction between facts and inferences | Complex actions are inherently co-ordinated and performed smoothly, accurately and skilfully |
| 4 | The professional conduct of unsupervised technical and managerial tasks | A **detailed** understanding of facts, theories and practical applications which enables problem solving and prioritisation | Acquired skills are developed to the extent that rapid reaction and adaptation to unforeseen situations is second nature |

# DETAILED TEACHING SYLLABUS

The detailed teaching syllabus for each module is laid out in a learning-objective format in which the objective for each sub-element describes what each participant must achieve to demonstrate that the necessary level of knowledge has been acquired. The learning-objective format assumes that the objective for each sub-element is preceded by the phrase:

*The expected learning outcome is that the participant has acquired the recommended level of competence in………………...*

# PRESENTATION

The manner and frequency of the presentation of facts, concepts and methodologies will be determined by individual instructors who will use what they see as the most appropriate teaching method to ensure that each participant has acquired the required level of competency in each sub-element of the syllabus.

# EVALUATION OR ASSESSMENT OF THE COURSE PARTICIPANTS

“*The award of AtoN qualifications should be based on the principle that satisfactory results are obtained during the basic training course*”[[3]](#footnote-3). The Model Course for ?? is principally theoretical supported by some practical tasks. It is recommended therefore that the competency of each participant is evaluated or assessed by formal written tests taken by participants at the end of each module [supported where appropriate by a personality assessment of each participant]. Further recommendations are at Part D paragraph 3.

# IMPLEMENTATION

It is self-evident that planning and preparation are essential to the successful implementation of this model course. In order to ensure that participants receive high quality instruction, Training Organisations will ensure that the following minimum assets are available before the course commences:

* Qualified Instructors;[[4]](#footnote-4)
* Support staff and facilities;
* Instruction and rest rooms;
* Training aids and equipment;[[5]](#footnote-5)
* Reference books; publications or extracts and other reference material;[[6]](#footnote-6)
* Navigational charts and nautical publications.

# VALIDATION

The information contained in this document has been based on the AtoN Level 1 Certificate recommended modules and subjects listed at Appendix 1 to IALA Recommendation E-141 – Standards for Training and Certification of AtoN Personnel. It has been reviewed by the Dean of the IALA World Wide Academy and validated by the appropriate IALA Working Group on behalf of the Secretary General.

PART C – COURSE FRAMEWORK

# INTRODUCTION

This model course is based on …... (Body text)

# ENTRY LEVEL REQUIREMENTS FOR A LEVEL 1 MANAGER

IALA Recommendation E-141 makes the assumption that participants selected for this model course would have ?????. In some regions the recruitment pool for potential ???? may not hold personnel with these backgrounds. It will therefore be for the Accredited Training Organisation, in consultation with the Competent Authority, to determine minimum entry requirements for ????? training. The following list provides guidance on criteria for selection of participants:

* Bullet;
* Bullet;
* Bullet.

# COURSE INTAKE – LIMITATIONS

The Accredited Training Organisation will determine the maximum number of participants that can reasonably acquire the necessary competence during a specific course of instruction. Experience has shown that given the specialised nature of the syllabus, one instructor should be able to transfer a satisfactory level of understanding to a maximum of 12 participants during a series of 40 minute lectures.

The course intake may have to be reduced if the level of language comprehension by participants is an issue. If the majority of participants do not use the main instruction language as their native tongue, class sizes may need to be reduced to between 6 and 10 participants depending on the quality of the instructor and his or her ability to communicate successfully with the participants.

# TRAINING STAFF REQUIREMENTS

IALA Recommendation E-141 Article 5.1.2 expects that Competent Authorities will ensure that instructors for this model course are appropriately qualified. The same should apply to the person responsible for training supervision and the assessment of participants’ competence – the Assessor.

Accredited Training Organisations will be accountable to the Competent Authority for ensuring that the instructors and assessors tasked with the conduct of this model course, and any supporting staff, are appropriately qualified and subject to review by approved Quality Management System procedures. The key factor is that both instructors and assessors should have an appropriate balance of professional and teaching competencies. The following list provides guidance on criteria for approved training staff:

## Course Instructors

* Fluency in English or other approved main language of instruction;
* Be in possession of an IALA AtoN Level 1 Certificate and at least 3 years’ management experience in AtoN service provision;
* At least 5 years’ work experience with a recognised AtoN service provider or IALA Industrial Member in a middle management capacity;
* Hold a seagoing Master’s Certificate or equivalent military naval qualification (for Module 2A instruction);
* Lecturing experience at a recognised nautical or engineering higher education establishment;
* Proven professional or technical expertise in a specialist field related to syllabus elements or sub-elements (for example pilotage; dredging; port design or battery technology).

## Course Supervisors and Assessors

* At least 3 years’ experience as an approved IALA AtoN Level 1 trainer;
* Be in possession of an IALA AtoN Senior Manager Certificate;
* Chair or vice-chair of an IALA Technical Committee;
* Persons approved by the Dean of the IALA World Wide Academy.[[7]](#footnote-7)

# TEACHING FACILITIES AND EQUIPMENT

It is assumed that standard lecturing equipment such as white boards and computer-assisted projectors will be provided. Additional teaching aids and equipment which might be appropriate to specific lectures are listed in the detailed teaching syllabus for each module. This includes suggestions for external visits where they might be available and appropriate.

References to specific paragraphs or sections in the IALA NAVGUIDE or other Manuals, Recommendations and Guidelines are shown in the detailed teaching syllabi.

PART D – GUIDELINES FOR INSTRUCTORS

# INTRODUCTION

??? are responsible to ??? for providing ???.

*The recruitment, selection and training of suitable personnel are a pre-requisite to the provision of professionally qualified personnel capable of contributing to safe and efficient AtoN operations….. to ensure that uniform standards of procedures, practices and professional standards are applied world-wide.[[8]](#footnote-8)*

The role of the instructor in this process is vital, particularly as the safety of seafarers and preservation of the marine and coastal environments are at risk if uniform standards are neglected or procedures are not fully understood and applied. Many sub-elements of this model course are concerned with safety, navigation risk and preservation of the environment. Instructors should be thoroughly acquainted with both National and International regulations concerning these issues and emphasise these aspects during instruction whenever they arise.

Technological advances and threats to safe navigation, many of them being addressed by the e-Navigation initiative, are generating changes and strategies to existing equipment and practices. It is essential that both instructors and assessors keep abreast of new technologies and regulations and amend or update lesson plans as necessary to reflect changes and to add new sub-elements to the detailed teaching syllabus when appropriate.

# CURRICULUM

The curriculum for this model course is based on the five broad module subject headings and sub-headings listed at Appendix 1 to IALA Recommendation E-141. In Part E of this document, each main module has been broken down into non-prioritised subject elements and sub-elements which show the level of knowledge that the instructor must impart to the course participants in order for them to achieve the specified level of competence.

The levels of competence shown in Table 1 above explain what a successful participant should be capable of doing in the workplace on the completion of the model course. The objective of each lecture is to ensure that each participant acquires the required level of understanding in each sub-element so that the required learning outcome can be achieved.

Sub-elements have been grouped into lectures capable of being delivered in 40 minutes under normal circumstances. Each Training Organisation will determine the optimum lecture length; the sub-elements it covers and over what period lectures will be delivered. This will depend on whether participants and instructors are available full time or whether work duties and other conflicting activities require lectures to be delivered in groups over an extended period.

The instructor should also make an allowance for external visits to National Organisations and Authorities; IALA Workshops and team-building instruction.[[9]](#footnote-9) An example of course planning is shown in Table 2 below. This assumes full time availability by participants for each Module; 47 forty-minute lectures followed by a 20 minute break; a full day’s instruction in First Aid; examinations; leadership training and external visits. Because some material may be unfamiliar to participants, sufficient time should be given for private study and clarification through tutorials. It is therefore recommended that no more than 5 lectures are held in any one working day. It is also recommended that examinations are held at least one day after the final lecture in any module to enable participants to revise adequately. Guidance on assessment; examinations and re-sits is at paragraph 3 below.

Table 2 is intended only as a guideline which Training Organisations may use to determine their own training programme based on participant numbers; availability and entry-level standards determined from the training needs analysis which is explained more fully at ANNEX A.

1. Example Course Outline Planning Programme

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Day** | **Module** | **Lectures (see Part E)** | **Instruction hours** | **Other Activity** | **Remarks** |
| 0 |  |  |  |  |  |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |
| 6 |  |  |  |  |  |
| 7 |  |  |  |  |  |
| 8 |  |  |  |  |  |
| 9 |  |  |  |  |  |
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| 16 |  |  |  |  |  |
| 17 |  |  |  |  |  |
| 18 |  |  |  |  |  |
| 19 |  |  |  |  |  |
| 20 |  |  |  |  |  |
| **Four working weeks[[10]](#footnote-10)** | | **Total hours** | **68[[11]](#footnote-11)** |  |  |

The course supervisor or assessor should be involved actively in course planning and its conduct. Participants who encounter difficulties with any elements of the syllabus should be identified by regular discussions with instructors and analysis of examination results. Additional time should be allocated for tutorials so that every participant who is willing to gain the required competence has every opportunity to do so.

In order to ensure quality management, improvement to the standard of lectures should be obtained through satisfaction feedback from participants based on ISO 9001 principles. Examination results should also be analysed by the course supervisor to determine whether the questions test competency to the required standard. If all participants achieve high scores, the questions may not be sufficiently testing. If all participants fall short of the required standard, the quality of the instruction and content is likely to be below standard too!

# EVALUATION AND ASSESSMENT

The principle method of evaluating whether participants have acquired the required level of competence on this model course is by formal written examinations. Each Accredited Training Organisation (ATO) will, in consultation with the Competent Authority, determine the most appropriate form of examination. It should be borne in mind that Level 1 managers will be dealing with the safety of mariners. Examinations should therefore be testing with answers generally provided from memory. The following points provide guidance on the style and content of examinations which ATOs may find helpful in determining the most appropriate in their circumstances:

* Examinations for each module or groups of modules should be conducted within a maximum time limit of between 40 and 60 minutes depending on the number of questions;
* A period to read the question paper before the examination time commences can be allocated, especially if the native language of participants is not the formal language of instruction;
* The questions should be short, clear and written in the formal language of instruction;
* Questions can either be multiple choice from 4 possible answers; require short written (few-word) answers, or a combination of both;
* The difficulty of each question should be based on the level of competence required from the participant in that subject. For example a question on the IALA Maritime Buoyage System should be more searching than one on inertial position systems;
* Lectures should end with key learning points and only what has been taught should be examined;
* The questions asked of one course of participants should be changed for the next course.

Each ATO will determine the pass mark for each examination paper. The guiding principle should be that a participant being considered for the award of an AtoN Level 1 Certificate is likely to involved actively in the junior management of AtoN service provision and will consolidate his or her basic knowledge though additional on-the-job and career development training. A participant who just fails to meet the pass mark despite active participation in the course may well develop into a satisfactory manager within the Organisation and should be given the opportunity to demonstrate his or her potential at a formal aural “viva” examination.

The following guidelines are proposed for consideration by ATOs:

* The standard pass mark in each examination is 60%, equivalent to a satisfactory (Level 2) degree of understanding;
* Participants who fail a competency test by less than 5% will be subject to an aural (“viva”) examination by the Course Supervisor (Assessor) the day following the written examination. Participants who fail the competency test by more than 5% or who do not demonstrate a satisfactory competence at a “viva” interview will not be awarded a Level 1 Certificate. Further training may be required and failed participants will be required to re-sit another written competency test at a time to be decided by the Training Organisation.

PART E – COURSE MODULES

This model course comprises five main modules covering the key subject headings listed in Recommendation E-141. Three modules are sub-divided giving a total of 10 modules in all.

Table 2 in Part D above gives an example of how the whole syllabus might be covered in ?? 40 minute lectures; ……. Table 3 below shows the outline of the model course. This is followed by an introduction and subject framework for each module broken down into a detailed teaching syllabus for each sub-element.

In order to allow for different entry levels of knowledge held by individual participants, the proposed order of lectures does not always follow the order of modules. For example ??. The Training Organisation will determine the most appropriate order of lecture delivery for each course following the training needs analysis of participants (see ANNEX A).

1. Model Course Outline

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Module** | **Subject** | **Lectures** | **Exercises** | **Total Instruction Hours** |
| 1 |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
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|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | | | **Total Recommended Instruction Time** | **?? hours** |

MODULE 1 Title (Module)

1. INTRODUCTION (Module Heading 1

Module 1 covers …. (Body text).

Instructors for this module should have proven competency, knowledge and experience in ???.

1. SUBJECT FRAMEWORK
   1. Scope

The syllabus for this module requires participants to gain the appropriate level of competence in understanding ???.

Participants will also gain an appropriate level of competence in ????.

* 1. Aims of Module 1

On successful completion of the module, participants will demonstrate the ability to ???.

1. DETAILED TEACHING SYLLABUS FOR MODULE 1 – TITLE (Module Heading 1)
2. Detailed Teaching Syllabus Module 1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Level of Competence** | **Recommended training aids; exercises and external visits** | **References**  Rec = Recommendation  GL = Guideline | **Lecture No.** |
| **1** |  |  |  |  |  |  |  |
|  | **1.1** |  |  |  |
|  |  | 1.1.1 |  |  |  |
|  |  | 1.1.2. |  |
|  |  | 1.1.3 |  |  |
|  |  | 1.1.4 |  |  |  |
|  |  | 1.1.5 |  |  |
|  |  | 1.1.6 |  |
|  |  | 1.1.7 |  |
|  |  | 1.1.8 |  |  |
|  | **1.2** |  |  |  |  |  |
|  |  | 1.2.1 |  |  |  |  |
|  | **1.3** |  |  |  |  |  |  |
|  |  | 1.3.1 |  |  |  |  |
|  |  | 1.3.2 |  |
|  |  | 1.3.3 |  |
|  |  | 1.3.4 |  |
|  |  | 1.3.5 |  |

MODULE 2 Title (Module)

1. INTRODUCTION

Module 2 is ……

Instructors for these modules should hold …... See Part C 4.1 for further guidance.

1. SUBJECT FRAMEWORK
   1. Scope

The syllabus for Module 2 requires participants to gain the appropriate level of competence in …..

* 1. Aims

On successful completion of Module 2, participants will demonstrate the ability to …...

1. DETAILED TEACHING SYLLABUS FOR MODULE 2 – Module Heading 1
2. Detailed Teaching Syllabus Module 2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Level of Competence** | **Recommended training aids; exercises and external visits** | **References**  Rec = Recommendation  GL = Guideline | **Lecture No.** |
| **2** |  |  |  |  |  |  |  |
|  | **2.1** |  |
|  |  | 2.1.1 |  |  |  |  |
|  |  | 2.1.2 |  |
|  |  | 2.1.3 |  |
|  |  | 2.1.4 |  |  |
|  |  | 2.1.5 |  |
|  | **2.2** |  |  |  |  |  |  |
|  |  | 2.2.1 |  |  |  |  |  |
|  |  | 2.2.2 |  |
|  |  | 2.2.3 |  |
|  |  | 2.2.4 |  |
|  |  | 2.2.5 |  |
|  |  | 2.2.6 |  |  |  |  |  |
|  |  | 2.2.7 |  |
|  |  | 2.2.8 |  |
|  |  | 2.2.9 |  |  |
|  |  | 2.2.10 |  |  |
|  |  | 2.2.11 |  |
|  |  | 2.2.12 |  |  |  |  |  |
|  |  | 2.2.13 |  |
|  |  | 2.2.14 |  |
|  |  | 2.2.15 |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Level of Competence** | **Recommended training aids; exercises and external visits** | **References**  Rec = Recommendation  GL = Guideline | **Lecture No.** |
| **2** | **2.3** |  |  |  |  |  |  |
|  |  | 2.3.1 |  |  |  |  |  |
|  |  | 2.3.2 |  |
|  |  | 2.3.3 |  |
|  |  | 2.3.4 |  |
|  |  | 2.3.5 |  |
|  |  | 2.3.6 |  |
|  |  | 2.3.7 |  |
|  |  | 2.3.8 |  |
|  |  | 2.3.9 |  |  |  |  |  |

MODULE 3 TITLE (Module)

1. INTRODUCTION (Module Heading 1)

Module 3 is …...

Instructors for Module 3 should be fully competent in ….. See Part C 4.1 for further guidance.

1. SUBJECT FRAMEWORK
   1. Scope

The syllabus for Module 3 requires participants to gain the appropriate level of competence in ….

* 1. Aims

On successful completion of Module 3, participants will demonstrate the ability to ……..

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1. DETAILED TEACHING SYLLABUS FOR MODULE 3 – TITLE (Module Heading 1)
2. Detailed Teaching Syllabus for Module 3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Level of Competence** | **Recommended training aids; exercises and external visits** | **References**  Rec = Recommendation  GL = Guideline | **Lecture No.** |
| **3** |  |  |  |  | | |  |
|  | **3.1** |  |  | | | |
|  |  | 3.1.1 |  |  |  |  |  |
|  |  | 3.1.2 |  |  |
|  | **3.2** |  |  |  |
|  |  | 3.2.1 |  |  |
|  |  | 3.2.2 |  |  |
|  |  | 3.2.3 |  |  |
|  | **3.3** |  |  |  | | | |
|  |  | 3.3.1 |  |  |  |  |  |
|  |  | 3.3.2 |  |  |
|  |  | 3.3.3 |  |  |
|  |  | 3.3.4 |  |  |  |  |  |
|  |  | 3.3.5 |  |  |
|  |  | 3.3.6 |  |  |
|  | **3.4** |  |  |  | | | |
|  |  | 3.4.1 |  |  |  |  |  |
|  |  | 3.4.2 |  |  |
|  |  | 3.4.3 |  |  |
|  | **3.5** |  |  |  | | | |
|  |  | 3.5.1 |  |  |  |  |  |
|  |  | 3.5.2 |  |  |
|  |  | 3.5.3 |  |  |
|  |  | .5.4 |  |  |
|  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Level of Competence** | **Recommended training aids; exercises and external visits** | **References**  Rec = Recommendation  GL = Guideline | **Lecture No.** |
|  | **3.6** |  |  |  | | | |
|  |  | 3.6.1 |  |  |  |  |  |
|  |  | 3.6.2 |  |
|  |  | 3.6.3 |  |
|  | **3.7** |  |  |  | | | |
|  |  | 3.7.1 |  |  |  |  |  |
|  |  | 3.7.2 |  |
|  |  | 3.7.3 |  |
|  | **3.8** |  |  |
|  |  | 3.8.1 |  |
|  |  | 3.8.2 |  |
|  |  | 3.8.3 |  |
|  | **3.9** |  |  |  | | | |
|  |  | 3.9.1 |  |  |  |  |  |
|  |  | 3.9.2 |  | 1 |

MODULE 4 TITLE – (Module)

1. INTRODUCTION

Module 4 is ….

Module 4 deals with ….

Instructors for Module 4 should be competent in ??? and hold appropriate qualifications recognised by the Accredited Training Organisation. See Part C 4.1 for further guidance.

1. SUBJECT FRAMEWORK
   1. Scope

The syllabus for Module 4 requires participants to gain the appropriate level of competence in …..

* 1. Aims

On successful completion of Module 4, participants will demonstrate the ability to …...

1. DETAILED TEACHING SYLLABUS FOR MODULE 4 – TITLE
2. Detailed Teaching Syllabus for Module 4

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Level of Competence** | **Recommended training aids; exercises and external visits** | **References**  Rec = Recommendation  GL = Guideline | **Lecture No.** |
| **4** |  |  |  |  | | |  |
|  | **4.1** |  |  | | | |
|  |  | 4.1.1 |  |  |  |  |  |
|  |  | 4.1.2 |  |  |
|  |  | 4.1.3 |  |  |
|  |  | 4.1.4 |  |
|  |  | 4.1.5 |  |
|  |  | 4.1.6 |  |  |  |  |  |
|  |  | 4.1.7 |  |
|  |  | 4.1.8 |  |  |
|  |  | 4.1.9 |  |  |
|  |  | 4.1.10 |  |  |
|  |  | 4.1.11 |  |  |
|  |  | 4.1.12 |  |
|  |  | 4.1.13 |  |  |
|  | **4.2** |  |  |  | | | |
|  |  | 4.2.1 |  |  |  |  |  |
|  |  | 4.2.2 |  |
|  |  | 4.2.3 |  | 2 |
|  |  | 4.2.4 |  |
|  |  | 4.2.5 |  |
|  |  | 4.2.6 |  | 3 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Level of Competence** | **Recommended training aids; exercises and external visits** | **References**  Rec = Recommendation  GL = Guideline | **Lecture No.** |
|  | **4.3** |  |  |  | | | |
|  |  | 4.3.1 |  |  |  |  |  |
|  |  | 4.3.2 |  |
|  |  | 4.3.3 |  |  |
|  | **4.4** |  |  |  | | | |
|  |  | 4.4.1 |  |  |  |  |  |
|  |  | 4.4.2 |  |  |
|  |  | 4.4.3 |  |  |
|  |  | 4.4.4 |  |
|  |  | 4.4.5 |  |  |  |  |  |
|  |  | 4.4.6 |  |
|  |  | 4.4.7 |  |
|  | **4.5** |  |  |  | | |
|  |  | 4.5.1 |  |  |  |  |
|  |  | 4.5.2 |  |  |
|  | **4.6** |  |  |  | | | |
|  |  | 4.6.1 |  |  |  |  |  |
|  |  | 4.6.2 |  |  |
|  |  | 4.6.3 |  |  |
|  |  | 4.6.4 |  |
|  |  | 4.6.5 |  |

MODULE 5 POWER SUPPLY

1. INTRODUCTION

Module 5 is designed primarily for participants with …..

Instructors for this module should hold …. See Part C 4.1 for further guidance.

1. SUBJECT FRAMEWORK
   1. Scope

The syllabus for Module 5 requires participants to gain the appropriate level of competence in …..

* 1. Aim

On successful completion of Module 5, participants will demonstrate the ability to …...

1. DETAILED TEACHING SYLLABUS FOR MODULE 5 – TITLE (Module style)
2. Detailed Teaching Syllabus for Module 5

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Level of Competence** | **Recommended training aids; exercises and external visits** | **References**  Rec = Recommendation  GL = Guideline | **Lecture No.** |
| **5** |  |  |  |  | | |  |
|  | **5.1** |  |  | | | |
|  |  | 5.1.1 |  |  |  |  |  |
|  |  | 5.1.2 |  |
|  |  | 5.1.3 |  |  |
|  |  | 5.1.4 |  |  |
|  |  | 5.1.5 |  |
|  | **5.2** |  |  |  | | | |
|  |  | 5.2.1 |  |  |  |  |  |
|  |  | 5.2.2 |  |
|  |  | 5.2.3 |  |  |
|  | **5.3** |  |  |  | | | |
|  |  | 5.3.1 |  |  |  |  |  |
|  | **5.4** |  |  |  | | |
|  |  | 5.4.1 |  |  |  |  |

1. TRAINING NEEDS ANALYSIS – EXAMPLE FORMAT
2. Introduction

The process of specific training is conducted in six steps:

1. Determine what needs to be taught – in this case the syllabus set out in IALA Recommendation E-141.
2. Analysis of existing competencies held by participants.
3. Determine which participants are exempt from specified subjects and which require full or additional training.
4. Plan lectures based on who needs to be taught what.
5. Lecture delivery and documentation.
6. Analyse training feedback and update lecture plans.
7. The Syllabus

The syllabus is broken down into Modules, elements and sub-elements. The IALA Model course for ???? has been formatted in this manner.

1. Analysis of Existing Competencies

Before the start of the course of instruction, each participant, regardless of previous qualifications or experience, will be asked to take a short competency test followed by a private interview to determine his or her training needs. It should be explained that the sole aim is for the participant to determine for themselves the amount of instruction that will be required so that they can demonstrate competency in each Module by passing each Module test. It should be explained that all participants will be required to sit the Module tests, even though they hold a professional qualification in a particular subject area.

Each participant will be given …. Participants will be expected to answer the questions from memory without referring to text books or other documentation. After the test has been completed, each participant will be given an answer sheet so that participants can self-mark their papers. Participants will then be interviewed privately by the course supervisor. Each Module should be analysed by sub-elements. Existing proven competencies for which the participant required no further training will be given a green flag. Red flags will be allocated to sub-elements where further training is either requested or required. A matrix of which participant requires what training in various subjects can then be produced which shows which participant should attend which lecture or whether exemption in a complete Module or subject element can be granted. See Table 14 below.

1. Example of Participant Training Needs

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Element** | **Sub-element** | **Subject** | **Participant A** | **Remarks** | **Participant B** | **Remarks** | **Participant C** | **Remarks** |
| **1** |  |  |  |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |  |  |  |
|  | **2.1** |  |  |  |  |
|  |  | 2.1.1 |  |  |  |  |
|  |  | 2.1.2 |  |  |  |  |
| **3** |  | Etc. |  |  |  |  |  |  |  |
| **4** |  |  |  |  |  |  |  |  |  |
| **5** |  |  |  |  |  |  |  |  |  |
|  | **5.1** |  |  |  |  |  |
|  |  | 5.1.1 |  |  |  |  |
|  |  | 5.1.2 |  |  |  |  |

1. Lecture Planning.

Having determined who needs to be taught what, the course supervisor allocates specific lectures to individual instructors, engaging external lecturers where required. Instructors then use the required level of competence, recommended training aids and references shown in the Model Course to prepare a series of 40 minute lectures in Microsoft PowerPoint® format supported by hand-outs containing all appropriate references. Each lecture ends with a list of key learning points. An allocation of 10 minutes should be made for questions.

1. Preparation of Test Papers.

Instructors responsible for each Module should prepare written test papers on what was taught with questions set at the appropriate level of difficulty based on the required level of competence.

1. Documentation.

A record, based on Quality Management System principles should be maintained of training progress and results.

1. Training Feedback and Analysis.

Feedback from participants and an analysis of test papers should be used to improve the quality of lectures.

1. Definitions; clarifications of terms and common abbreviations used in text of this Model Course are listed at Articles 1.2 and 1.3 of Recommendation E-141 (December 2009). [↑](#footnote-ref-1)
2. The pool of available talent is likely to vary from country to country. Article 5.2 of Recommendation E-141 assumes that participants selected for this Model Course will have an engineering background or hold a seagoing Master’s Certificate or equivalent. Participants with these internationally recognised qualifications may not always be available. See Part C paragraph 2 of this document for greater detail. [↑](#footnote-ref-2)
3. IALA Recommendation E-141 Article 4.1 [↑](#footnote-ref-3)
4. *“Competent Authorities should ensure that instructors and assessors are appropriately qualified and experienced for the particular training and assessment of competence for which they are given responsibility. Instructors should hold suitable professional and academic qualifications”* IALA Recommendation E-141 Article 5.1.2 [↑](#footnote-ref-4)
5. Where possible Microsoft PowerPoint® presentations should be capable of being projected onto a suitable white background or screen [↑](#footnote-ref-5)
6. The standard reference publication is the IALA NAVGUIDE Manual. References to appropriate IALA Recommendations and Guidelines are given in Part E of this document [↑](#footnote-ref-6)
7. It is proposed that a list of accredited assessors will be held by the Dean of the World Wide Academy. National Members may choose to nominate appropriate personnel for inclusion on this list so that other National Members or Accredited Training Organisations can avail themselves of their services under individually agreed arrangements or contracts. [↑](#footnote-ref-7)
8. Extract from Article 1.1 of IALA Recommendation E-141. [↑](#footnote-ref-8)
9. Article 5.1 of IALA Recommendation E-141 specifies that “training to work as a member of a team should normally be part of the syllabus [see Part E Module 3 sub-element 3b.5.5]. E-141 Article 5.2 specifies that participants should attend an IALA-sponsored course in Risk Management Tools (PAWSA; IWRAP Mk.11). [↑](#footnote-ref-9)
10. If an IALA-sponsored Risk Management Workshop is planned during the model course, the total instruction time will extend by an extra week. [↑](#footnote-ref-10)
11. Total time allocated to participant instruction. This does not include time for the team building exercise, lecture and examination preparation or tutorials. [↑](#footnote-ref-11)