

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MERCHANT SHIPPING SECRETARIAT MINISTRY OF PORTS AND SHIPPING

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Notice to all approved Maritime Training Institutes

Conduct of training and assessment of seafarers by distance learning and e-learning

1. OBJECTIVE

To prescribe the guidelines in compliance with the requirements of regulation I/6 of the 1978 STCW Convention, as amended, on the training and assessment of seafarers by distance learning and e-learning.

2. **DEFINITION OF TERMS**

- "Distance learning and e-learning" means conduct of maritime education and training where the instructor and student are physically separated by time and space.
- "DGMS" means Director General of Merchant Shipping.
- "Receiving technology" means the hardware and software associated with a learner
- "SCORM" or "Sharable Content Object" is a model that refers to the standards for web-based electronic educational technology supported by a learning management system.

3 GENERAL PROVISIONS

- 1 The conduct of training by distance learning and e-learning programme shall:
 - 1.1 be provided by Maritime Training Institution duly approved by the DGMS;
 - 1.2 be suitable for the selected objectives and training tasks to meet the competence level for the subject covered;

- 1.3 have clear and unambiguous instructions for the trainees to understand how the programme operates;
- 1.4 provide learning outcomes that meet all the requirements to provide the underpinning knowledge and proficiency of the subject;
- 1.5 be structured in a way that enables the trainee to systematically reflect on what has been learnt through both self-assessment and tutor-marked assignments; and
- 1.6 provide professional tutorial support through telephone, facsimile, email or any other form of advanced communications.
- 2 The conduct of assessment of the trainee's progress and achievements by distance learning and e-learning shall:
 - 2.1 clearly provide information to the trainees on the way the tests and examinations are conducted and how the results are communicated;
 - 2.2 have test questions that are comprehensive and will adequately assess a trainee's competence and are appropriate to the level being examined;;
 - 2.3 procedures in place to ensure questions are kept up to date;
 - 2.4 prescribe the conditions where the examinations can take place and the procedures for invigilation to be conducted;
 - 2.5 secure procedures for the examination system so that it will prevent cheating;
 - 2.6 secure validation procedures to record results for the benefit of the DGMS; and
 - 2.7 embed modular and summative examinations for the academic subjects in the learning management system. However, a final examination and assessment shall be conducted under the supervision of the examiners of the Merchant Shipping Secretariat. Examiners may assign conduct of assessments of the short courses and the academic subjects on the approved and registered centers of the institutions and in the presence of approved assessors.

4. INSTRUCTORS AND ASSESSORS

- Instructors and assessors must be appropriately qualified and experienced for the particular types and level of trainings or assessments of competence of seafarers, as required under the STCW Convention;
- The requirements of MSN 02/2017, as amended, shall be Complied and must be included in the quality management system of the training provider; and

Instructors must undergo a relative training on the effective and efficient use of the distance learning and e-learning platform employed.

5. SECURITY AND INTELLECTUAL PROPERTY

- 1 The e-learning system should be secured from tampering and attempts to hack into the system;
- 2 SCORM compliant or certified by an IT certification system; and
- 3 Secure against unauthorized access or accidental loss.

6. DELIVERY INFRASTRUCTURE

- 1 The delivery of distance education through a fixed connection; or
- A mechanism to allow the seafarer to receive all course materials in an appropriate timing and order, and access to the course facilitator and fellow course participants for discussions and to be able to seek answers to questions by means of:
 - 2.1 delivery of material through best suitable methods.
 - 2.2 delivery of material by having an appropriate blend of the two preceding means.
- 3 The institutions should document and take advantage of existing communications for the students to have seamless interaction by means of, but not limited to the following:
 - 3.1 telephone;
 - 3.2 email;
 - 3.3 learning platforms,
 - 3.4 virtual classrooms; and
 - 3.5 if it deems necessary through actual class room lecture.

4. Student support

The submission is to include how the registered training organization will offer equivalent support to that of any other full time college based student.

7. RECEIVING TECHNOLOGY

1. Operating systems

- 1.3 The platform of the institutions must be able to support existing operating systems and acceptable older versions;
- 1.4 Common information formats such as XML (Extensible Markup Language), which is a flexible way to share both the format and the data on the World Wide Web, intranets, and elsewhere, should be used; and
- 1.3 An evaluation mechanism must be made to test and ensure that new operating systems support the application for distance education with current content. A recommended category or suggested operating systems must be readily available for seafarers.

2 Video and sound

- 2.1 Video and audio sessions must be recordable and readily available for use by listeners without any sort of disturbance or distortion;
- 2.2 The platform of the institutions must be able to support existing video and sound systems, and acceptable older versions;
- 2.3 The institution must send a notice to the seafarer should any change in preferable versions take place; and
- 2.4 An evaluation mechanism must be made to test and ensure that new video and sound formats support the application for distance learning and e-learning with current content. A recommended category or suggested versions must be readily available for seafarers.

3 Internet browsers

- 3.1 The platform of the institutions must be able to support existing operating systems and acceptable older versions;
- 3.2 The institutions must send a notice to the seafarer should any change in workable versions take place;
- 3.3 An evaluation mechanism must be made to test and ensure that new browsers support the application for distance education with current content. A recommended category or a list of suggested browsers must be readily available to seafarers; and
- 3.4 An adopted automatic systems check where a candidate may check and make automatic recommendations about necessary upgrades on the seafarer's system must be readily available.

8. CONTENT AND ITS FORMAT

- There must be a continuous check to ensure that the content is accurate and is the updated version. It is critical that there is a formal process to recommend and track changes in a course;
- There must be a mechanism to ensure that course changes are recommended by competent people and reviewed by an independent competent person not directly involved with those changes;
- 3 Ensure that all source information for a course is identified and referenced. This would require extensive documentation of information in an appropriately referenced format;
- 4 If electronic based resources should be linked, it must be in a direct and easy to access format. These links must be reviewed prior to the start of each course to ensure that they are valid links and direct the seafarers to the correct information;
- 5 Formats used must be of open standard, consider limited bandwidths available for seafarers, readily available, secure against unauthorized access or accidental loss and at least expense to users;
- 6. Interactive video lecture forms the foundation of the formal course delivery. However, workbooks for study and practice examples must be made available to users with very limited Internet bandwidth or no Internet connectivity.

9. LEARNING MANAGEMENT SYSTEM (LMS)

- 1 Use of a system to provide a number of critical services that make the interaction between the lecturer and student more seamless;
- The system must be safeguarded from unauthorized access. Qualified people have access to the system and only the appropriate access for the function they perform. Faculty and staff must use only the computers that ensure the system remains secure. A policy of changing passwords on a regular policy should be in place;
- Appropriate backups must take place to ensure that curriculum materials are not lost through computer crash, theft, fire, infrastructure failure or other incidents and storing of back-ups in two appropriately independent off site locations;
- 4 Lecture attendance record shall be maintained throughout the entire training session and shall store securely and available to produce to the DGMS when requested to do so.
- 5 Presentations created must require active participation from the seafarers at various points to ensure that they are still participating. Activity must involve the seafarers progress and material related questions should be raised to gauge their

- understanding as well as participation. A separate modular/ function/ competency-based examinations and activities have to be set in place;
- A mechanism is available to track the student's progress consisting of time spent viewing the materials as well as grading of information;
- 7 Unique personal accounts shall be given to seafarers to access any courses they register;
- A mechanism in place to have a reporting facility where details of access to different course elements were made (the duration of access, total time accessing over multiple sessions and a variety of statistics analyzed over the course). This reported data may extrapolate an index of student participation in the course and subsequently a rough correlation to the distance equivalent of attendance in a course.
- 9 The maritime training institute (MTI) has to develop a set of guidelines that show what is to be expected in a distance course including, but not limited to:
 - 9.1 Course information
 - 9.1.1 Introduction & Welcome
 - 9.1.2 Course Outline
 - 9.1.3 Course schedule (online sessions)
 - 9.1.3 Learning objectives
 - 9.1.4 Instructors (bio and contact information)
 - 9.1.6 Text & Resources
 - 9.1.7 Assessment (list and values)
 - 9.1.8 Checklist of Activities & Assignments
 - 9.1.9 System or Technical requirements
 - 9.1.10 Help and Technical Support (how to print)
 - 9.1.11 Link to the Library
 - 9.1.12 Academic Integrity & Netiquette
 - 9.2 Communications
 - 9.2.1 Announcements
 - 9.2.2 Course Email
 - 9.2.3 Discussion Forums
 - 9.2.4 Online bulletin board
 - 9.3 Student course feedback form
 - 9.4 Contents of a lecture
 - 9.4.1 Modules
 - 9.4.2 Presentation materials
 - 9.4.3 Instructor notes
 - 9.4.4 Reading and additional resources
 - 9.4.5 Assignments
 - 9.4.6 Self assessment
 - 9.4.7 Examination

10. APPROVED TRAINING PROGRAM

- **1.** Approved distance learning and e-learning course
 - 1.1 The approved distance learning and e-learning programs must provide the minimum training requirements and the general framework, which shall serve as guide for MTIs in designing their own training program, in accordance with the DGMS guidelines for course designing. The modules that would employ the means of distance learning and e-learning must be evidently identified from modules that require lecturer and seafarer classroom/simulator interaction and practical sessions.
 - 1.2 Pursuant to regulation 1/6 and Section A-1/6 of STCW '78, as amended, MTIs shall ensure that trainings are designed and structured in accordance with written programs, methods and media of delivery, procedures and course materials as are necessary to achieve the prescribed standards of competence under the said convention. They shall also ensure that lecturers and assessors who are responsible for the training and assessment of competence of participant candidates in these training programs, respectively, including those responsible for our supervision thereof, are appropriately qualified in accordance with the existing qualification standards prescribed by MSS and the MTI's own quality policies and procedures.
 - 1.3 MTIs shall offer and conduct the delivery of a training program by distance learning and e-learning, only after the necessary approval has been granted by the MSS.

2. Facilities and Equipment

- 2.1 MTIs shall provide its own training equipment, as provided under the Course Framework. The training equipment prescribed are the minimum and does not restrain them to use additional equipment that can help achieve the prescribed standards of competence under the STCW '78 Convention, as amended. They shall ensure that the training equipment and simulators in laboratories and simulator rooms, respectively, is setup in such a way that each trainee shall have sufficient exposure to use them during training and assessments.
- 2.2 A list of Training Facilities and Equipment to be used shall be provided and submitted in support of the MTI's application for approval of Training it intends to offer.

3. Quality Standards System (QSS)

The MTI shall have a documented Quality Standards System (QSS) as required under Regulation I/8 of the STCW '78 Convention, as amended. The QSS shall cover all relevant systems, processes and procedures and shall be duly certified by an independent Certifying Body to ensure the achievement of defined objectives, standards of competence, and knowledge, understanding and proficiency prescribed under the STCW '78 Convention, as amended.

4 Examination and Assessment System

The MTI must have a documented system for assessment, in relation to Section A-I/6 of the STCW Code.

5. Completion of the Training Program

- 5.1 Trainees who have successfully completed the approved training programs mentioned above and passed the examination and assessment thereof shall be issued a Certificate of training or Certificate of Proficiency as per the approved certificate format.
- 5.2 The format of such certificate shall be approved by the DGMS.

6. Text books

Students shall have access to all relevant eBooks.

7. Intake limitation

Intake of students shall be limited according to the size of the monitoring facility available but shall not be more than 20.

8. Student registration system shall automatically detect and prohibit, if a student trying to registering into more than one training programme, which will be running at same time on a particular day.

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Merchant Shipping Secretariat Ministry of Ports & Shipping

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Approval for a distance learning and E-learning Module for an approved Training Programme.

Following information shall be provided by an approved maritime training institute who wish to obtain an approval for a distance learning and E-learning Module as an embedded part of an approved Training Programme/Course. A document folder (either in soft or hard) shall be submitted to the Director General of Merchant Shipping, together with a request letter along with a copy of the approval letter of the Training Programme/course which it refers.

The information should be consisted with:

1.0	Course information							
1.1.	Introduction & Welcome;							
	(Including the entry requirements and the requirements of availability of online/internet facilities and necessary devices)							
1.2.	Mapping with approved course;							
	(Hence the elements for the subject Module shall be identified)							
1.3.	Course/Programme Outline;							
1.4.	Course schedule (including Q & A session at end of a lesson);							
1.5.	Learning objectives;							
1.6.	Instructors (Bio-data, contact information and initial training on handling the							
	relevant ICT tools/equipment);							
1.7.	Text books & other Resources including the teaching aids;							
1.8.	1.8.1 Assessment (list and values);							
	1.8.2 Assessment Criteria for both students and the lectures							
1.9.	Checklist of Activities & Assignments;							
1.10.								
	guidelines given in the item No.5,6,7 and 8 of the MSN 03/2020, but not limited							
	to; (if required, use the space under the item No. 6 of this checklist)							
	1.10.1 Minimum/Recommended Requirements;							
	1.10.1.1 Mobile Versions;							
	1.10.1.2 Browser Versions;							
	1.10.2 Features and Benefits of the Platform but not limited to;							
	1.10.2.1 Record of attendance of the students;							
	1.10.2.1.1 Avoidance of overlapping the attendance for online sessions;							
	1.10.2.1.2 The record of duration of individual participation in a session.							
	1.10.2.2 The quality of the audio and video;							
	1.10.2.3 Evaluation of the e-learning programme;							
	1.10.2.4 Preservation of e-records;							
	1.10.2.5 Log-in facility for MSS officials to an online session unannouncedly							
1.11.	Help and Technical Support but not limited to;							
	1.11.1 Moderators and Admin Support;							
	1.11.2 Moderator Team;							

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	1.11.3 Moderator Schedule;						
	1.11.4 Technical support to the Students (How, When and Where).						
1.12.	Link to the Library including the recorded lectures						
1.13.	-						
	1.13.1 Chat boards;						
	1.13.2 Forums, Sway (Blogs) and Team;						
	1.13.3 Spelling and Grammar.						
2.0	Communications;						
2.1	Announcements;						
2.2	Course Email;						
2.3	Discussion Forums;						
2.4	Online bulletin board;						
2.5	Methodology to inform the most updated time table to the MSS.						
3.0	Student course feedback form;						
	Example; Feedback survey after every lecture.						
	This may be presented as a feedback survey constructed by the admin team and						
	made available to all groups on Teams through the online bulletin board.						
4.0	Contents of an online lecture;	1					
4.1	Modules;						
4.2	Presentation materials;						
4.3	Instructor notes;						
4.4	Reading and additional resources;						
4.5	Assignment;						
4.6	Self-assessment;						
4.7	Examination; (including the methodologies of conducting)						
5.0	Effective video links and camera access to facilitate online audits, including for						
<i>c</i> 1	performing interviews and document reviews Facilities ensuring the confidentiality and effectiveness of an online audit process						
5.1							
6.0	Other requirements if any;						

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Approval of the assigned officers;

	Name	Date	Signature
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2.			
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