



Republic of the Philippines  
OFFICE OF THE PRESIDENT  
COMMISSION ON HIGHER EDUCATION

CHED MEMORANDUM ORDER (CMO)

No.: 38

Series of 1998

SUBJECT: SUPPLEMENTAL POLICIES, STANDARDS AND GUIDELINES TO CMO 51, s. 1997 (POLICIES, STANDARDS AND GUIDELINES FOR MARITIME EDUCATION)

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In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994," and by virtue of Resolution No. R261-98 of the Commission en banc dated 13 July 1998, and for the purpose of complying with the requirements of the STCW 1978 as amended, the following supplemental policies, standards and guidelines for maritime education are hereby adopted and promulgated by the Commission, thus:

ARTICLE III  
ADMINISTRATION

SECTION 6. - The Superintendent/Dean of maritime education courses must possess relevant academic degrees, experiences and credentials as follows:

- 6.1 A Master's degree in any field with a bachelor's degree relevant to the maritime program; and
  - 6.1.1 a maritime certificate on management level (at least a chief mate or a second engineer license) and;
  - 6.1.2 at least two (2) years teaching experience; or
  
- 6.2 BSMT or BSMar.E with 15 Master's degree units; and
  - 6.2.1 at least two (2) years experience as a chief mate or a second engineer officer; and
  - 6.2.2 at least four (4) years teaching experience; or
  
- 6.3 Associate in Nautical Science (ANS) or Associate in Marine Engineering (AME); and
  - 6.3.1 at least two (2) years experience as a master or a chief engineer officer; and
  - 6.3.2 at least six (6) years of teaching experience;
  - 6.3.3 by the end of school year 2000-2001, ANS or AME Certificate holders shall be BSMT or BSMar.E degree holders, respectively.

book or three years of approved shipboard experience, provided however, that six (6) months of which is associated with relevant watchkeeping duties.

15.2 Shipboard experience as per 15.1 may be taken, as appropriate after 1<sup>st</sup> or 2<sup>nd</sup> curriculum year.

**SECTION 16. - The safety courses as required in the Code are hereby made a part of the curricula and as such shall appear in the Transcript of Records.**

16.1 Safety 1: Basic training (A-VI/1, paragraph 2);

16.1.1 Personal survival techniques;

16.1.2 Fire prevention and fire fighting;

16.1.3 Elementary first aid; and

16.1.4 Personal safety and social responsibility;

16.2 Safety 2:

16.2.1 Proficiency in survival crafts and rescue boats (A-VI/2, paragraphs 1 to 4);

16.2.2 Advanced fire fighting; and

16.2.3 Medical first aid;

The management may opt to offer the theoretical aspect of the safety courses in the school, in which case it shall have the minimum equipment and facilities for such.

These courses may be taken at Maritime Training Council (MTC) accredited Training Centers under a Memorandum of Agreement between the school and the Training Center following the guidelines in Annex III.

## **ARTICLE VI ADMINISTRATIVE AND PHYSICAL FACILITIES**

### **SECTION 21.**

21.16 Simulation room (Radar, ARPA, GMDSS);

## **ARTICLE VII LABORATORY TRAINING EQUIPMENT**

**SECTION 25. - There shall be sufficient and appropriate working equipment, apparatus, supplies, tools and other materials and consumables for laboratory experiments and practical exercises as contained in Annex II and IIA which are made an integral part of these Policies, Standards and Guidelines. Sufficient and appropriate means that the number of such teaching aids shall be proportionate and adequate to the number of students in a class.**

**ARTICLE IV  
FACULTY AND ASSESSORS**

**SECTION 8. -**

8.1 Bachelor's degree in the particular field of specialization.

8.1.1 By the end of school year 2000-2001, all faculty members must be Bachelor's degree holders in their field of specialization.

SECTION 9A - The management shall appoint assessors who are not included in the teaching of the class being assessed.

Assessors shall:

9A.1 have an appropriate level of knowledge and understanding of the competence to be assessed;

9A.2 be qualified in the task for which the assessment is being made;

9A.3 have received appropriate guidance in assessment methods and practice;

9A.4 have gained practical assessment experience; and

9A.5 if conducting assessment involving the use of simulators, have gained practical assessment experience on the particular type of simulator under the supervision and to the satisfaction of an experienced assessor.

**ARTICLE V  
CURRICULUM**

**SECTION 14. -**

14.1 The minimum credit units consist of 177 units for Bachelor of Science in Marine Transportation (BSMT) and 198 units for Bachelor of Science in Marine Engineering (BSMar.E).

14.2 Schools may modify sequencing of courses provided prerequisites are observed and provided further that all third year technical subjects in the CHED model should be taught by faculty members as specified in Section 8.

**SECTION 15. -**

15.1 The required shipboard experience for deck and engine officers may be a one-year structured shipboard training documented in an approved training record

book or three years of approved shipboard experience, provided however, that six (6) months of which is associated with relevant watchkeeping duties.

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## ARTICLE VIII LIBRARY

### SECTION 28. -

28.1 Professional Books - at least three (3) titles per professional subject.

By virtue of R.A. No. 8293, reproduction of books and other copyrighted publications, by reprinting or recopying shall not be allowed. Such reprints shall not be given points in the evaluation of library holdings.

28.7 STCW '78 as amended '95, SOLAS and MARPOL Code and other Maritime international laws, conventions, protocols and relevant publications.

## ARTICLE IX SHIPBOARD TRAINING

**SECTION 31. -** The institution shall have a Shipboard Training Office headed by a Certified Marine Officer with at least one year shipboard experience in a capacity of his Certificate. This Office shall be responsible for arranging for and placement of cadets for the one-year shipboard training, as well as for the administration and coordination of activities and requirements of students who will undergo shipboard training. Among other things, the Shipboard Training Office shall:

31.1 Arrange for and facilitate embarkation of cadets.

31.2 Monitor and coordinate with the shipowner/operator the evaluation of performance of cadets on board ship.

31.3 Keep updated records of approved companies and the outcome of their shipboard training activities.

Field trips for familiarization is optional on the part of the institution.

### SECTION 31A -

Effective at the latest April 1, 1999, the International Shipping Federation (ISF) Training Record Books for Deck and Engineer Cadets shall be used for the shipboard training. These Record Books will be made available to the maritime institutions through the Commission on Higher Education and to be paid for by the students or the companies at cost, as per agreement with the ISF. However, these Training Record Books may be used even before April 1999, if the school/company so desires.

**SECTION 31B -**

The Guidelines on Shipboard Training are contained in Annex IV.

**ARTICLE XII  
ADMISSION, SELECTION AND RETENTION OF STUDENTS**

**SECTION 34.1**

34.1.3 High school graduate

**ARTICLE XIII  
QUALITY STANDARDS SYSTEM (QSS)**

**SECTION 35.** - Every maritime school shall develop and implement a quality standards system in accordance with the provisions of the Rules for a Quality Standards System in Maritime Academies (Annex V). Each school must have its QSS documented by August 1, 1998 and certified not later than August 1, 1999.

**SECTION 36.1** - The QSS of maritime educational institutions shall be evaluated by the Commission on Higher Education (CHED) or its authorized representative agencies at least once every five (5) years.

**SECTION 36.2** - Considering that CHED has already delegated to the maritime institutions the authority to approve, in its behalf, the shipboard training of shipping companies where their cadets will be placed, the procedures for such approval shall be included in the QSS of the institution.

**SECTION 36.3** - The qualifications of internal auditor shall be specified in its QSS, and shall comply with regulation Section A I/8 of the STCW '95.

Pasig City, Philippines, July 14, 1998

For the Commission

  
ANGEL C. ALCALA  
Chairman

**ANNEX II-A**  
**REQUIREMENTS FOR SIMULATORS AND SIMULATOR TRAINING**

**1 Background**

STCW 1995 requires that every candidate for certification as an officer in charge of a navigational watch on ships of 500 gross tonnage or more shall, inter alia, provide evidence of competence obtained from approved radar simulator and ARPA simulator training. This implies that CHED accredited maritime colleges must provide this kind of training for its students. The purpose of the training and the expected depth of knowledge and skills in radar operation must also be clarified in order to be able to decide on how many simulators will be required in each college.

Using simulators instead of genuine equipment aims to enhance the quality of training and reduce the total training costs. There are no special IMO requirements as to what simulator shall be used, but the International Marine Simulator Forum (IMSF) has proposed the following classification:

- Category 1 Full mission, i.e. total environment, including various advanced functions;
- Category 2 Multi task, i.e. total environment, excluding various advanced functions;
- Category 3 Limited task, i.e. environment for limited training;
- Category 4 Single task, i.e. a specific sub-system.

PC based simulators shall be allowed, provided that they meet the compatibilities required in (3).

A useful and economic radar simulator should be equipped as follows:

- Coastline generator, capable of generating:
  - Central areas for navigational training, complimented with corresponding paper or electronic charts and
  - At least 20 ship targets.
- At least two "own ships" (in separate cubicles) equipped with:
  - Radar display
  - Maneuvering equipment (Steering equipment and engine throttle or engine telegraph),
  - Chart table,
  - Echo sounder,
  - VHF equipment, and
  - Decca, Loran or Navstar GPS
- ARPA equipment on at least one of the "own ships", and
- One X/Y plotter for debriefing (optional) or equivalent such as recording system that can be printed out as and when required.

## 2 The Usage of Radar Simulators

It is recommended that two students be assigned together on one "own ship" for 30 hours, 15 hours as the master and 15 hours as a mate, and 10 hours alone. During these 40 hours, 20 exercises each of about 2 hours shall be carried out under the supervision of the instructor.

Bearing in mind the competition on quality officers from other nationalities, the very minimum radar simulator training shall be 4 hours alone "in command" and 30 hours for three students together on one "own ship", i.e. one master, one mate and one helmsman who will be shifting between these roles. Colleges shall decide how they shall comply with this requirement. Determination of the required number of "own ships" on radar simulator must be related to the number of students enrolled in the second year, based on the prescribed 40 hours of simulator training.

## 3. Simulator Training

Any simulator/PC based simulator used for mandatory simulator-based training shall:

- be suitable for the selected objectives and training tasks;
- be capable of simulating the operating capabilities of shipboard equipment concerned, to a level of physical realism appropriate to training objectives, and include the capabilities, limitations and possible errors of such equipment;
- have sufficient behavioral realism to allow a trainee to acquire the skills appropriate to the training objectives;
- provide controlled operating environment, capable of producing a variety of conditions, which may include emergency, hazardous or unusual situations relevant to the training objectives;
- provide an interface through which a trainee can interact with the equipment, the simulated environment and, as appropriate, the instructor; and
- permit an instructor to control, monitor and record exercises for the effective debriefing of trainees.

## 4. Qualification of Assessors for Simulator training

They must have gained practical assessment experience on the particular simulator under the supervision of and to the satisfaction of an experienced assessor.



### ANNEX III

#### **GUIDELINES ON THE MEMORANDUM OF AGREEMENT (MOA) BETWEEN THE MARITIME INSTITUTION AND THE TRAINING CENTERS**

1. The Memorandum of Agreement shall be entered into only with Training Centers whose MTC certification of the said course is current. As such, the MOA has to be renewed every year based on MTC certification. It is preferable that the Training Center selected be near the school.
2. The MOA shall contain, among others, the following:
  - 2.1 Schedule of Training;
  - 2.2 Cost of Training per student;
  - 2.3 Scope of the courses with reference to the relevant Sections of the STCW Code.
3. Maritime institutions using their own Training Centers shall also enter into a MOA with the Center, if it is a separate corporate entity.
4. Training certificates and respective grades shall be issued by the training center. This in turn shall be reflected in the Transcript of Records.
5. The Institution shall provide the CHED Regional Office with a copy of the MOA per school year for monitoring purposes.

**ANNEX IV**  
**APPROVING SEAGOING SERVICE**

The Commission on Higher Education (CHED), as the government agency approving the offering of the Bachelor of Science in Marine Transportation and Bachelor of Science in Marine Engineering degree courses, is likewise responsible for approving the one year shipboard training of cadets carried out on board ships flying different flags, this being an integral part of the curricula of both courses.

For this purpose, the following Policies and Guidelines are to be followed:

1. CHED hereby authorizes maritime institutions with recognized BSMT and BSMar.E programs to approve, on its behalf, the shipboard training of shipping companies where their cadets will be placed.
2. Authorized maritime institutions shall appoint its shipboard training officer (refer to Article IX of CMO #1, s. 1997) who will validate the shipboard training as defined in the International Shipping Federation (ISF) Training Record Book for deck and engineer officers.
3. Approval of a company for shipboard training of cadets shall be based on the following criteria:
  - 3.1 The company shall document compliance with the International Safety Management (ISM) Code and having nominated dedicated ship(s) for conduct of in-service training for certification. Companies having included the nomination of ships for shipboard training of candidates for certification in their procedure for ISM certification and are issued a document of compliance according to ISM Code Regulation 13.2, shall be accepted for giving the appropriate onboard training of candidates for certification.
  - 3.2 A company which do not comply with the ISM Code shall document that cadets will only be sent on board ships which are:
    - 3.2.1 Duly registered and classified in a nationally accredited classification society having nominated dedicated ship(s) for shipboard training of candidates for certification; and
    - 3.2.2 Properly manned by officers and ratings holding valid certificates.
  - 3.3 The company shall agree to:
    - 3.3.1 Designate a person to supervise the company's training activities;
    - 3.3.2 Be open to inspection by personnel authorized by CHED for that purpose;

3.3.3 Inform the college of any changes made that would affect the efficiency by which the shipboard training will be carried out, monitored and supervised.

3.4 Approval shall be without time restriction, but may be withdrawn with six months prior notice if the conditions for approval are not fulfilled.

Maritime Institutions shall submit a Shipboard Training Placement Report to the CHEDRO's not later than June 30 of each year using the enclosed form.

