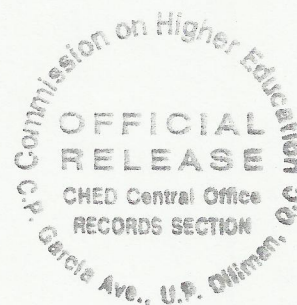


Republic of the Philippines
OFFICE OF THE PRESIDENT
COMMISSION ON HIGHER EDUCATION



CHED MEMORANDUM ORDER (CMO)

No. 32

Series of 2013

SUBJECT: *AMENDMENTS AND SUPPLEMENTAL POLICIES, STANDARDS AND GUIDELINES TO CMO 14 SERIES OF 2013*

In accordance with 1) the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994" that mandates the Commission on Higher Education (CHED) to set minimum standards for higher education programs without abridgement of the curricular freedom of universities and colleges except for minimum unit requirements for specific academic programs; general education distribution requirements as may be determined by the Commission; and specific professional subjects as may be stipulated by various licensing entities; 2) CHED Memorandum Order (CMO) No. 2 Series of 2011 that revised the Guidelines in the formulation of CHED Policies, Standards and Guidelines of Academic Programs to hew more closely to the Constitutional provision of academic freedom in all institutions of higher learning and Section 13 of RA 7722; 3) CHED CMO No. 46 Series of 2012 that advocates the shift to learning competency-based policies, standards and guidelines in higher education programs as well as outcomes-based quality assurance, among others; and 4) the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended that set the global learning competency-based standards for maritime education and training; and by virtue of the Commission en banc Resolution No. 685-2013 dated 7 October 2013, the following amendments and supplemental guidelines are hereby adopted and promulgated by the Commission.

**ARTICLE I
INTRODUCTION**

Section 1. Rationale and Background

In 2005, qualified technical experts from the academe, industry, professional organizations, concerned government agencies and other stakeholder groups reviewed the Policies, Standards and Guidelines (PSGs) that governed the operation of maritime higher education programs (MHEIs) at the time, to ensure their compliance with national standards, the STCW requirements, and other relevant international laws and conventions. This review resulted in the consolidation of three (3) PSGs implemented by the Commission on Higher Education (CHED) from 1997 to 1999: CMO No. 51 Series of 1997 (Policies, Standards and Guidelines for Maritime Education); CMO No. 38 Series of 1998 (Supplemental Policies, Standards and Guidelines to CMO 51); and CMO No. 10 Series of 1999 (Amendments to CMO No.

51 Series of 1997 and CMO No. 38 Series of 1998 (Policies, Standards and Guidelines for Maritime Education).

In 2010, the conference of parties to the STCW Convention held in Manila on 21-25 June 2010 adopted the Manila Amendments to the 1978 STCW Convention. These amendments updated the standards of competence required of marine deck and engineering officers at the operational level particularly, in light of emerging technologies, new training and certification requirements and methodologies, and medical fitness standards for seafarers among others, and ultimately for shipping companies to have a safe, secure and efficient shipping operation on cleaner oceans.

In view of the foregoing and in furtherance of the ongoing paradigm shift to learning competency-based standards in Philippine higher education, CHED issued CMO No. 13 and No. 14 Series of 2013 (PSGs on Bachelor of Science in Marine Transportation and Bachelor of Science in Marine Engineering, respectively) to align the two undergraduate degree programs with national academic standards, industry needs and international standards.

The crafting of the two Amendments and Supplemental Policies, Standards and Guidelines to CMO 13 and 14 Series of 2013 was enlightened by the new model courses of the International Maritime Organization as approved by the General Assembly of the STW 44 Meeting on 3 May 2013.

At the same time, the General Assembly accepted another model course on Leadership and Teamwork for inclusion in the Model courses for OIC deck and engine watch.

Against the backdrop of substantive model course changes that were approved a few days before the formal issuance on 14 May 2013 of CMO 13 and 14, CHED directed a mapping of the two courses against the STCW competency requirements as amended and the approved model courses.

The mapping took the following considerations into account: 1) the need to use the competency tables of STCW as the basis; 2) the use of the IMO model courses approved on 3 May 2013 as indicative of the allocation of the number of hours per subject; 3) the inclusion of competencies from theoretical Management Level Courses that do not require onboard experience in the academic curriculum to enhance the competencies of students, following the practice in different parts of the world and as required by the shipping companies; 4) the incorporation of the general subjects mandated by CHED for the Bachelor of Science degree programs; and 5) the coverage of subjects that form part of the approved Onboard Training Record Book as well as other requirements such as the handling of radio communication equipment Global Maritime Distress and Safety Systems (GMDSS) for deck officers as stipulated in Chapter IV of STCW that would give students familiarity with the systems and operation of GMDSS even if they will eventually need a separate COC for this.



The course mapping guided the supplemental amendments to CMOs 13 and 14 Series of 2013. The following articles and sections reflect the amendments to CMO 14.

ARTICLE II DEFINITION OF TERMS

Administration: the Department of Transportation and Communications (DOTC), through the Maritime Industry Authority (MARINA), as the single administration in the Philippines responsible for oversight in the implementation of the 1978 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) as amended;

Assessment: applied to individuals, the process of evaluating the knowledge, skills or competencies of individual learners; applied to programs and institutions, the process of evaluating the educational quality of a higher education institution or program;

Competence: an ability that extends beyond the possession of knowledge and skills. It includes 1) the cognitive competence involving the use of theory and concepts as well as informal tacit knowledge gained experientially; 2) functional competence (skills or know-how), those things that a person should be able to do when they work in a particular area; 3) personal competence involving knowing how to conduct oneself in a specific situation; and 4) ethical competence involving the possession of certain personal and professional values. For maritime education, the minimum competences are specified in the Tables in the Standards of the STCW Code;

Course: A discrete component of a degree program with a specified title and description of coverage, learning context and goals, and the learner's responsibilities;

Course Specifications: For maritime education, a mapping/specification of the competence/knowledge, understanding and proficiencies, performance and approximate hours for attaining the standards of STCW as amended. The description of each course—i.e. course name that may include course numbers to indicate the sequential/ordinal nature of the courses, e.g. English 1 and English 2 and the course description of the coverage, characteristics and content of teaching and learning, the academic demand and/or responsibility of the student, the independence of students in the pursuit of learning, and the depth of learning in the course is contained in the course syllabus/course program.

Curriculum: A specification of the learning outcomes of the proposed degree program—i.e. what students are expected to know, understand and be able to do after completing the program—that shows the minimum unit requirements to attain them; a summary of required courses, electives, major courses, among others, and the minimum acceptable level of demonstrated achievement (evaluated against assessment criteria) for awarding credits;



Diploma: a certificate given by a higher education institution to a student who has fulfilled all the requirements of a Bachelor's degree. In the case of a Bachelor's degree in Marine Engineering, the grant of a diploma presupposes completion of the academic requirements; completion of basic training, security and advanced safety courses; and training in a seagoing ship;

Seagoing Ship: ships other than those that navigate exclusively in inland waters or in waters within, or closely adjacent to, sheltered waters or areas where port regulations apply;

Learning competency standards: the knowledge, skills and competencies linked to the practice of a job or profession;

Learner outcomes: clear statements of what the learner is expected to know, understand and do as a result of a learning experience;

Outcomes-based education: an educational approach that implies the best way to learn is to first determine what needs to be achieved. Once the desired results or "exit outcomes" have been determined, the strategies, processes, techniques and means are put in place to achieve predetermined goals. In essence, it is a working backwards with students as the center of the learning-teaching milieu;

Outcomes-based Assessment: At the program level, a direct assessment of educational outcomes, with the evaluation of individual programs that lead to those outcomes. In this approach, the program outcomes are largely measured against the policies, standards and guidelines of the discipline, which, in the case of maritime education, are aligned with the STCW standards as amended as well as those of other international conventions;

Program of Study: an articulation of learning outcomes and the corresponding courses, sequence and credit number assigned to courses intended to develop the required learning competencies and achieve threshold standards of a particular discipline;

STCW Code: the Code adopted in the 1995 Conference of Parties to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, which was convened by the International Maritime Organization in its headquarters from 26 June to 7 July 1995. The Code contains in **Part A**, mandatory provisions to which specific reference is made to the Annex of the STCW Convention and which give in detail, the minimum standards required to be maintained by Parties in order to give full and complete effect to the provisions of the STCW Convention. **Part B** contains recommended guidance to assist Parties to the STCW Convention and those involved in implementing, applying or enforcing its measures to give the STCW Convention full and complete effect in a uniform manner;

STCW Convention: the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 which entered into force in April



1984, and which has since been amended in 1991, 1994, 1995, 1997, 1998, 2004, 2006 and 2010; and

Unit: the credits of a course that can be transferred to a qualification other than the one for which it is obtained.

ARTICLE III PROGRAM OPERATION AND AUTHORIZATION

Section2. Authority to Operate

No amendments or supplemental guidelines.

ARTICLE IV PROGRAM SPECIFICATIONS

Section 3. Program Title and Degree Name

No amendments or supplemental guidelines.

Section 4.Program Description

No amendments or supplemental guidelines

4.1 Program Educational Objectives

The Bachelor of Science in Marine Engineering (BSMarE) program aims to:

a) Produce graduates who are:

- competent to carry out safely the watchkeeping duties of an Officer-in-Charge (OIC) of an engineering watch in a manned engine-room or designated duty engineer officer in a periodically unmanned engine-room on a seagoing ship powered by main propulsion machinery of 750 kW propulsion power or more, both at sea and in port;
- fully conversant with the basic principles to be observed in keeping an engineering watch as per STCW Regulation VIII/2 and Chapter VIII of the STCW Code; and
- qualified to pursue a professional career or advanced studies in a related maritime field of specialization.



- b) Provide and equip students with knowledge, understanding, proficiencies, skills, competencies, attitudes and values to qualify them for:

- professional licensure examination; and,

- assessment and certification as Officer-in-Charge (OIC) of an engineering watch in a manned engine-room or designated duty engineer officer in a periodically unmanned engine-room on seagoing ships powered by main propulsion machinery of 750 kW propulsion power or more;

4.2 Program outcomes

The graduates of the BSMarE program shall have acquired the knowledge and competence necessary to perform the following:

- a) Demonstrate the ability to perform the competence, at the operational level under Section A-III/1 of the STCW Code;
- b) Apply knowledge in mathematics, science and technology in solving problems related to the profession and the workplace;
- c) Work in a multi-cultural and/or multi-disciplinary team;
- d) Understand professional and ethical responsibilities;
- e) Communicate effectively in oral and written English;
- f) Understand the impact and implications of various contemporary issues in the global and social context of the profession;
- g) Engage in lifelong learning and keep abreast with developments in the field of specialization and/or profession;
- h) Use appropriate techniques, skills and modern tools in the practice of the profession in order to remain globally competitive; and
- i) Design research and analyze data using appropriate research methodologies

4.3 Specific Professions/Careers/Occupations or Trades

A graduate of the BSMarE program is prepared for careers in, among others:

- a) Merchant Marine profession
- b) Maritime Industry
 - 1. Ship building and repair
 - 2. Ship operations and management
 - 3. Port operations and management
 - 4. Ship surveying and inspection
- c) Maritime Education and Training
- d) Government
 - 1) Philippine Navy



- 2) Philippine Coast Guard
- 3) Maritime Industry Authority

4.4 Allied Programs

No amendments or supplemental guidelines.

ARTICLE V COMPETENCY STANDARDS, ASSESSMENT AND CONFERMENT OF THE DEGREE

Section 5. Competency Standards

Every student who has satisfactorily completed the BSMarE program shall have acquired the standard of competence specified under Section A-III/1; Section A-VI/1, paragraph 2; Section A-VI/2, paragraphs 1 to 4; Section A-VI/3, paragraphs 1 to 3; Section A-VI/4, paragraphs 1 to 3; Section A-VI/6-6 of the STCW Code.

Section 6. Assessment of Competence

The assessment of competence of students who have satisfactorily completed the BSMarE program and the relevant safety courses as part of the curriculum shall be in accordance with the methods of demonstrating competence as provided for under Table A-III/1; Table A-VI/1-1; Table A-VI/1-2; Table A-VI/1-3; Table A-VI/1-4; Table A-VI/2-1; Table A-VI/3; Table A-VI/4-1; Table A-VI/6-2 of the STCW Code; and the pertinent rules and regulations promulgated by the Administration.

Section 7. Conferment of the Degree

The issuance of a diploma for a BSMarE degree requires:

- a. Completion of the academic course requirement
- b. Have completed combined workshop skills training and an approved seagoing service of not less than 12 months as part of an approved training program which includes onboard training that meets the requirements of section A-III/1 of the STCW Code and is documented in an approved training record book OR otherwise have completed combined workshop skills training and an approved seagoing service of not less than 36 months of which not less than 30 months shall be seagoing service in the engine department AND, in addition, have performed during either instance of required seagoing service, engine-room watchkeeping duties under the supervision of the chief engineer officer or qualified engineer officer for a period of not less than six months.



- c. Completion of the basic training, security and advanced safety courses

CHED shall issue the Certification, Authentication and Verification of the Transcript of Records of maritime higher education institutions that comply with the standards of STCW.

ARTICLE VI CURRICULUM

Section 8. Curriculum Description.

The BSMarE program has a minimum total of 189 credit units. The program is comprised of the general education component following the CHED general education curriculum – B (GEC B) under CO No. 4, series of 1997, special professional courses, shipboard training (On-Board Training) and Physical Education (PE) and the National Service Training Program (NSTP). This set of courses prepares the students as marine engineer officers.

As a requirement for obtaining the degree, advance safety courses are included in the curriculum without corresponding units.

The sequencing of the courses according to pre-requisites and co-requisites shall be observed. The shipboard training per CMO No. 2 Series of 2012 is in line with the requirements of the 1978 STCW Convention as amended, in which the students shall be trained in the actual operation of the ship and the performance of their tasks. A total of 40 units shall be credited to students who satisfactorily fulfill the requirements of the shipboard training.

The General Education courses shall be revised once the new General Education curriculum is in effect with the implementation of the K to 12 program in 2016. An amendment to this CMO shall be issued by CHED at such time to show the revised curriculum.

The instructional approach for this program shall be learner-centered and outcomes-based to prepare the students for a career at sea and effectively carry out the tasks, duties and responsibilities of an Officer-In-Charge of an Engine Watch.

Section 9. Curriculum Outline and Content

The outline and content of the curriculum of maritime higher education institutions (MHEIs) shall be based on the mapping in **Annex A** of courses and hours against the prescribed competence, knowledge, understanding and proficiency for the different functions outlined in Table A-III/1. The course mapping includes theoretical management level courses.



The MHEIs shall determine the distribution of course hours into lecture and laboratory hours and the corresponding units for laboratory work, keeping in mind the importance of laboratory hours for honing the competencies of officers-in-charge of an engine watch. CHED shall approve the revised curriculum of the MHEIs to ensure that it meets the minimum standards of the STCW.

Math, Physics and Chemistry are pre-requisites to the professional programs in Marine Engineering. The Maritime Higher Education Institutions are expected to comply with the pre-requisites and co-requisites of the other required courses.

The following is a **sample** curriculum. MHEIs are expected to develop their own curriculum based on the mapping of courses in ANNEX A:

CURRICULUM BACHELOR OF SCIENCE IN MARINE ENGINEERING

CURRICULUM BACHELOR OF SCIENCE IN MARINE ENGINEERING							
Term	Course	No.	Descriptive Title	HOURS		Units	Remarks
				Lec	Lab		
FIRST YEAR							
1st. Sem	Math	1	College Algebra	3	0	3	
	Math	2	Plane Trigonometry and Solid Mensuration	3	0	3	
	Eng	1	Study and Thinking Skills in English	3	0	3	
	Hum	1	World Culture and Geography	3	0	3	
	Nat Sci	1	General Physics	3	3	4	
	Nat Sci	3	General Chemistry	2	3	3	
	Mach	1	Machine Shop	1	4	2	
	PE	1	Basic Swimming	0	2	2	
	NSTP	1	National Service Training Program			(3)	
			Total Units	18	12	23	
2nd Sem	SocSc	2	Politics and Governance with Philippine Constitution	3	0	3	
	Math	3	Calculus and Analytic Geometry	3	0	3	
	Eng	2	Writing in the Discipline	3	0	3	
	Fil	1	Komunikasyon sa Akademikong Filipino	3	0	3	
	Mach	2	Machine Shop	1	4	2	
	SocSc	4	The Life, Works and Writings of Jose Rizal	3	0	3	
	E Mat		Engineering Materials	4	0	4	
	Draw		Marine Engineering Drawing	1	1	1	
	Comp	1	Computer Applications and Networking	2	3	3	
	PE	2	Advanced Swimming	0	2	2	
	NSTP	2	National Service Training Program			(3)	
				Total Units	23	10	27
SECOND YEAR							
1st Sem	SocSc	3	Society and Culture with Family Planning, STD, HIV & AIDS Prevention	3	0	3	
	Hum	2	Ethics	3	0	3	
	Eng	3	Speech Communication with IMO SMCP	3	0	3	
	Fil	2	Pagbasa at PagsulatTungosaPananaliksik	3	0	3	



	Mech		Mechanics	3	0	3	
	Marlaw		Maritime Law	3	0	3	
	Mach	3	Machine Shop	1	4	2	
	Electro	1	Electrotechnology	3	3	4	
	PE	3	Team Sports	0	2	2	
	Total Units			22	9	26	
2nd Sem	SocSc	1	General Psychology with Alcohol and Drug Prevention	3	0	3	
	Eng	4	Research and Report Writing	3	0	3	
	Electro	2	Electrotechnology	4	3	5	
	Nat Sci	2	Applied Physics (Thermodynamics)	3	3	4	
	Nav Arch		Naval Architecture	4	1	4	
	Mar Env		Protection of the Marine Environment	3	0	3	
	Persman		Leadership and Teambuilding	3	0	3	
	PE	4	Dual Sports	0	2	2	
Total Units				23	9	27	
THIRD YEAR							
1st Sem	PP	1A	Power Plant Diesel I	4	3	5	
	Aux Mach	1	Auxiliary Machinery	5	3	6	
	Electro	3	Electrotechnology	4	3	5	
	Auto	1	Marine Automation I	3	3	4	
	E Watch		Engine Watchkeeping	3	1	3	
	Total Units			19	13	23	
2nd Sem	PP	1B	Power Plant Diesel II	2	3	3	
	PP	2	Power Plant Steam	5	3	6	
	Aux Mach	2	Auxiliary Machinery	4	3	5	
	Main		Engine Room Maintenance	2	3	3	
	Auto	2	Marine Automation II	3	3	4	
	Safety	1	Basic Training	1	3	2	with BT Certificate
Total Units				17	18	23	
FOURTH YEAR							
	Cadetship		One-Year Seagoing Service, documented in an approved Onboard Training Record				
			Book and includes at least 6 months engine watchkeeping duties.				
	Total Units					40	
	Safety	2	Advanced Fire Fighting (AFF) Proficiency in Survival Craft (PSCRB) Medical First Aid (MFA)				Student must obtain COP for AFF, PSCRB and MFA in order to obtain BSc degree
Total Units for BSMarE						189	



Section 10. Safety and Security Courses

All Maritime Higher Education Institutions shall comply with the minimum standards provided for under Chapter VI of the STCW Code, as amended, thus:

- | | |
|---------------------|--|
| a) Section A-VI/1-1 | Personal Survival Techniques |
| b) Section A-VI/1-2 | Fire Prevention and Fire Fighting |
| c) Section A-VI/1-3 | Elementary First Aid |
| d) Section A-VI/1-4 | Personal Safety and Social Responsibility |
| e) Section A-VI/2-1 | Proficiency in Survival Craft and Rescue Boats |
| f) Section A-VI/3 | Advanced Fire Fighting |
| g) Section A-VI/4-1 | Medical First Aid |
| h) Section A-VI/6-1 | Competence in Security Awareness |

For the advanced courses that are required under Regulation III/1-2.5 of the STCW 1978, as amended, students shall have completed the courses (e to g above) in an Administration-accredited maritime training institution.

Before graduation, students shall present their certificates of proficiency (CoPs) for these courses as requirement for graduation.

Maritime Higher Education Institutions (MHEIs) may establish their own training facilities under Chapter VI of the STCW Code as amended and according to the rules and regulations promulgated by the Philippines' STCW Administration.

MHEIs may opt to adopt a Memorandum of Agreement (MOA) with MARINA accredited training center subject to the following regulations:

- a) Applicant parties (Maritime Higher Education Institutions and Training Centers) shall submit to CHED the Memorandum of Agreement (MOA) proposal with all the supporting documents for approval subject to CHED recommendation.
- b) The MOA mentioned in this rule must be valid. This MOA shall be subjected to CHED monitoring and evaluation for a period of two (2) years. In case of any complaints, CHED shall conduct a verification visit of the training center.
- c) In case of the transfer of the MOA to another training center or additional training center/s, the same procedure shall apply.
- d) Either party may terminate the MOA by giving at least three (3) months notice and CHED must be immediately informed of such termination.
- e) In case the training center is no longer eligible to be a party to the MOA due to termination of accreditation, CHED must be informed immediately.
- f) The conduct of Basic and Advanced Safety Training must conform to the standards set by MARINA.
- g) The CHED standard form and requirement for a Memorandum of Agreement between schools and training centers shall be strictly followed.
- h) MHEIs shall use the CHED-prescribed form-MEUF-CC-1 as standard form in the issuance of "Certificate of Completion".

- i) Issuance of Authority to offer Basic Training shall be governed by the rules and regulation of MARINA and the MOA with Training Centers shall take the following considerations into account:
 - ✓ Both the theoretical and practicum components of the course shall be conducted in the training center and the approval of MOA between the school and training center shall be governed by this CMO.
 - ✓ Notwithstanding anything contained in this section, contact hours and student laboratory equipment ratio must be implemented.
- j) The MHEI must have a MOA with the training center located within the region or neighboring regions that may be closer in location to the school;
- k) The MHEI shall submit the following reports:
 - ✓ List of graduates from the school
 - ✓ Annual Summary Statistics of Training conducted per schedule from the school.
- l) The MOA shall be suspended or withdrawn based on the following conditions:
 - ✓ Non submission of annual reports
 - ✓ Violation of the Scope of Accreditation
 - ✓ Violation of any provision of these guidelines and the MOA

The MHEIs shall facilitate the placement of cadets in Administration-accredited maritime training institution and monitor the progress of their training.

Section 11. Shipboard Training

No amendments or supplemental guidelines.

Section 12. Program of Study

Maritime higher education institutions shall revise their program of study depending on the needs of industry, current trends and practices, the effect of promulgation of new laws, and local and international rules and regulations provided that all prescribed courses/competencies under STCW are offered and complied with and pre-requisites and co-requisites are observed.

Section 13. Review, Revision and Approval of the Curriculum

MHEIs shall review the BSMarE curriculum and the corresponding course syllabi at least once a year and shall incorporate in its Quality Management Manual the procedures to undertake such review, guided by the following:

a) Review and Revision

1. The review and revision of the curriculum and course syllabi shall aim towards continuing improvement of the program;



2. Such review and revision shall consider alignment with STCW as amended and other international conventions as well as new laws, rules and regulations as well as the needs of industry; current trends and practices; and such other factors or considerations as may be applicable;
3. Any review and revision made on the curriculum and course syllabi must be clearly and properly identified and presented for purposes of evaluation and approval;
3. The proposed revised program curriculum/course syllabi shall be subjected to the approval of CHED.

b) Submission of the Proposed revised Program Curriculum/Course Syllabi

1. Any proposed revision to the program curriculum and/or course syllabi shall be submitted to CHED for approval;
2. The application shall be duly supported with documentary evidence that the proposed revised curriculum/course syllabi is aligned with standards of STCW as amended and other international agreements and is in accordance with the needs of industry, current trends, practices, laws etc.
4. The application shall then be forwarded by the CHEDRO to the MEU-OPS of the Central Office upon receipt thereof.

c) Evaluation of the Proposed revised Program Curriculum/Course Syllabi

1. The MEU-OPS processes the application and forwards it to technical experts drawn from a pool identified by the Technical Working group and the Technical Panel. The technical experts shall assess if the submissions meet the requirements of STCW as amended and other international conventions/the STCW-aligned course specifications;
2. The duly evaluated proposed revised program curriculum/course syllabi shall then be referred to the Technical Panel for Maritime education for final review. The TPME shall recommend approval or disapproval or ocular inspection depending on the revisions made relative to the technical requirement for laboratory equipment as specified under the STCW convention as amended and the STCW Code

d) Approval of the Proposed revised Program Curriculum/Course Syllabi

- 1) If the TPME finds that the proposed program curriculum/course syllabi meets the standards of the STCW Convention as amended and other relevant conventions, the same shall be recommended to the OPS Director;



- 2) Upon receipt of the TPME recommendation, the OPS Director shall then approve the revised program curriculum/course syllabi and endorses it to the Executive Director for approval
- 3) If the application is approved, the Executive Director informs the MHEI through the CHEDRO of the approval and informs the MHEI through the CHEDRO of the decision;

e) Disapproval of the proposed revised Program Curriculum/Course Syllabi

- 1) If the TPME finds that the proposed revised program curriculum/course syllabi does/do not meet the standards of the STCW Convention as amended and other relevant conventions, the same shall be recommended for disapproval by the OPS Director;
- 2) Upon receipt of the TPME recommendation, the OPS Director shall then disapprove the proposed revised program curriculum/course syllabi and endorse the same to the Executive Director;
- 3) The Executive Director disapproves the proposed revised program curriculum/course syllabi and informs the MHEIs through the CHEDRO of the disapproval thereof

f) Effectivity and Implementation of the Revised Program Curriculum/Course Syllabi

- 1) A duly approved revised program curriculum/course syllabi shall take effect and be implemented in the first semester of an academic year except for course syllabi which may be implemented in the second semester;
- 2) Such revised curriculum/course syllabi shall cover only the incoming Freshmen although the HEI is free to use the approved course syllabi for students in the other years.

**ARTICLE VII
SAMPLE COURSE SPECIFICATION**

Section 14. The model course specifications for first year courses (e.g. Chemistry, Physics, and Machine Shop 1 and 2) in the BSMarE program that meet the STCW standards as amended contained in **Annex B** of this CMO provide a sampling of the model course specifications for all STCW-related courses in the program.

**ARTICLE VIII
PROGRAM ADMINISTRATION**



Section 15. Organization

No amendments or supplemental guidelines.

Section 16. Dean

The dean shall have the following qualifications:

A. for holder of management level certificate:

No amendments or supplemental guidelines.

B. For holder of Officer in Charge of a Navigational Watch (OIC-NW)/Officer in Charge of an Engineering Watch (OIC-EW) certificate:

- 1) Holder of a BSMT or BSMarE degree;
- 2) Holder of Master's degree;
- 3) Holder of a valid PRC license as OIC-NW or OIC-EW and have not less than 36 months of sea-going experience in such capacity;
- 4) Holder of not less than five (5) years of satisfactory teaching experience and two (2) years of satisfactory managerial experience; and
- 5) Completed the following training courses:
 - ✓ IMO Model Course 6.09(Training Course for Instructors)
 - ✓ IMO Model Course 3.12(Assessment, Examination and Certification of Seafarers)

The Dean shall be allowed to handle a maximum teaching load of not more than 12 hours a week.

Section 17. Department Chair/Head

No amendments or supplemental guidelines.

Section 18. Faculty

18.1 No amendments or supplemental guidelines.

18.2 No amendments or supplemental guidelines.

18.3 No amendments or supplemental guidelines.



18.4 Faculty members **teaching courses involving the use of simulators**, in addition to the requirements in the preceding paragraph shall:

- a) Be holder of a Certificate of Completion of the "Train the Simulator Trainer and Assessor Course" (IMO Model Course 6.10), or an approved training course for Simulator Instructors and Assessors by the Philippines' STCW Administration;
- b) Have acquired appropriate guidance in instructional techniques involving the use of simulators; and
- c) Have gained practical operational experience on the particular type of simulators being used. This requirement may be satisfied through a planned in-house training of the maritime higher education institution or the transfer of technology training by the simulator supplier

18.5 No amendments or supplemental guidelines.

18.6 No amendments or supplemental guidelines.

18.7 Faculty-Student Ratio No amendments or supplemental guidelines.

18.8 Student-Equipment Ratio No amendments or supplemental guidelines.

18.9 Faculty Development

No amendments or supplemental guidelines.

Section 19. Assessments and Assessors

The maritime higher education institutions shall institute a system and structure of assessment that will ensure the achievement of student competencies to comply with STCW standards. The MHEIS shall make sure that there are a sufficient number of qualified assessors for the various courses.

The Designated assessors shall

- a) have an appropriate level of knowledge and understanding of the competence to be assessed
- b) be qualified for the task for which the assessment is being made
- c) have undergone training in:
 - ✓ "Training Course for Instructors" (IMO Model Course 6.09)
 - ✓ "Assessment, Examination and Certification of Seafarers" (IMO Model Course 3.12); and



- ✓ "Train the Simulator Trainer and Assessor Course" (IMO Model Course 6.10), or an approved training course for Simulator Instructors and Assessors by the Philippines' STCW Administration for those assessing competence using simulators;
- d) gained practical experience (e.g. teaching for at least one semester in the related subject or as assistant to an experienced assessor for at least one semester)
- e) gained practical assessment experience on the particular type of simulator under the supervision and to the satisfaction of an experienced assessor for assessments involving the use of simulators.

Section 20. Technical Support Personnel

No amendments or supplemental guidelines.

Section 21. Library

No amendments or supplemental guidelines.

21.1 Library Holdings

No amendments or supplemental guidelines.

21.2 Library Space

No amendments or supplemental guidelines.

21.3 Networking

No amendments or supplemental guidelines.

ARTICLE IX FACILITIES AND EQUIPMENT

Section 22. Institutional Sites and Buildings

No amendments or supplemental guidelines.

Section 23. Classroom

No amendments or supplemental guidelines.

Section 24. Laboratory



Laboratory rooms shall allow space appropriate to the size of the equipment and the number of students. It should be well-ventilated and well-lighted, contain the specific laboratory equipment and, where appropriate, adequate water supply is provided. The following laboratory rooms shall be made available:

- a) Physics
- b) Chemistry
- c) Computer
- d) Basic and Advanced Training course (if owned)
- e) Machinery Room:
 - marine engine
 - refrigeration
 - electrical equipment
 - auxiliary machinery
- f) Machine shop room
- g) Seamanship Room
- h) Electrical/Electronic Room
- i) Automation Room

24.1 Laboratory Equipment

All laboratory equipment **except those stipulated in Section 10** shall be owned by the institution and located within the institutional site. There shall be sufficient number of equipment, machinery, apparatus, supplies, tools and other materials, accessories and consumables contained in **Annex C** of this CMO.

"Sufficient and appropriate" means that the number of such teaching aids and equipment shall be proportionate and adequate to the number of students enrolled in a particular subject so as to ensure their sufficient exposure to the equipment and attainment of the required competence level.

The institution shall provide the necessary audiovisual room and facilities with appropriate equipment in support of the teaching-learning process such as video/overhead/slide projector, sound system, LCD projectors, screens, and others.

ARTICLE X RESEARCH AND EXTENSION

Section 25. Organization

MHEIs are expected to fulfill the three-fold functions of higher education institutions—teaching, research and extension. To carry out these functions, they shall designate a coordinator for research and extension.

Section 26. Research



The faculty of MHEIs shall pursue research that reflects scholarship of application, integration, teaching, or, in exceptional instances, scholarship of discovery.

The faculty shall provide opportunities for all students to integrate research into required projects and activities (e.g. design of a marine propulsion system; formulation of a plan for the management of a marine environment, among others)

Section 27. Extension

No amendments or supplemental guidelines.

ARTICLE XI QUALITY STANDARDS SYSTEM

All Maritime Higher Education Institutions shall comply with the minimum standards and guidelines governing a quality standards system pursuant to Regulation I/8, Section A-I/8 and B-I/8 of the STCW Code, as amended.

ARTICLE XII ADMISSION AND RETENTION

No amendments or supplemental guidelines.

Article XIII MISCELLANEOUS PROVISIONS

Section 28. Sanctions

No amendments or supplemental guidelines.

Section 29. Repealing Clause

No amendments or supplemental guidelines.

Section 30. Separability Clause

No amendments or supplemental guidelines.

Section 31. Effectivity Clause



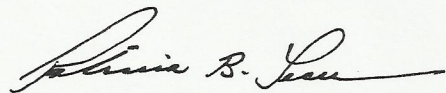
This CMO shall take effect immediately upon approval of the Commission and 15 days after its publication in the Official Gazette or in a newspaper of general circulation.

Upon approval of the CMO, the MHEIs shall immediately revise the BS Marine Engineering curriculum to comply with the STCW standards as amended. The CHED-approved revised curriculum of the MHEIs shall take effect in SY 2014-2015.

The MHEIs shall make sure, however, that the course program for the 1st year students who enrolled in School Year (SY) 2013-2014 shall cover the course specifications in Annex B of this CMO. The MHEIs may adjust or revise the curriculum of the 1st year students for the second semester SY2013-2014 or design a make up program for the lacking subjects during the 2nd year.

Quezon City, Philippines, 7 October 2013

For the Commission:



PATRICIA B. LICUANAN, Ph.D.
Chairperson

