

Massachusetts Maritime Academy

GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM-Online Course

COURSE MT 4122 (Credits - 4)

REVISED: August 27, 2022

Fall Semester Academic Year 22-23

1. Instructors

Professor: CAPT James J. Fitzpatrick, Ed.D.

Assistant Professors: CAPT Kurt DeCicco, Mate Edward Vacha

OFFICE: 3rd Deck Bresnahan Building Room C304

I can be reached by telephone at extension 5335. If you can't reach me at the above number you may leave a message and I will return the call. If you need to reach me in an emergency, please text my cell phone number: 508-736-5113. I can also be reached via email at jfitzpatrick@maritime.edu

Mass Maritime is committed to providing reasonable accommodations to students with documented disabilities. Students who believe they may need accommodations in this class are required to contact Dr. Elaine Craghead, Assistant Dean Academic Resource Center x5350 ADAcompliance@maritime.edu

MMA Health Services realizes that students may encounter situations which could impede their academic, personal and social development and success. Counseling services are designed to help students address these concerns, increase their self-awareness and empower them to manage challenging areas in their lives. To schedule a confidential appointment please call Jennifer Levesque - Mental Health Counselor, Health Services Phone: 508-830-5000 x1480

Email: jlevesque@maritime.edu

Location: 3rd Co

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2 Catalog Description

Pre-requisite: MT3221

Students will be taught to operate the radio communications equipment required on board GMDSS-compliant vessels. Students will become proficient with GMDSS equipment and procedural operation along with developing knowledge of radio wave propagation. This GMDSS course addresses all the elements found in the GMDSS model course developed in the United States. This course satisfies the requirements necessary to earn the classroom and laboratory STCW-95 endorsement as a Global Maritime Distress and Safety System Operator.

3. Text

T1 - Introduction to GMDSS, J. Patrick Allen, Mercomms unlimited, 2nd edition 2007

T2 – IMO Model Course 1.25 – General Operator’s Certification for Global Maritime Distress and Safety System.

4. Supplementary Reading

47 CFR Part 80.

Marine Radio navigation and Communications, Monroe and Bushy, 1998.

<https://www.fcc.gov/wireless/bureau-divisions/mobility-division/commercial-radio-operator-license-program/examinations>

<https://www.fcctestonline.com/>

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5. Hybrid Class Format

Role playing, Critical Thinking, Guided Independent Study, Simulation and Lecture with group discussions. Class attendance, attentiveness, good behavior and respect for classmates and the instructor is conducive to forming a good learning environment.

6. Learning Objectives

As per US GMDSS Task Force syllabus

This course is designed to meet all GMDSS STCW 95 knowledge based and competency assessments, which form part of the requirement for Officer in Charge of a Navigation Watch (STCW 95).

The aim of the course is to provide the student with a comprehensive and practical understanding and operation of the GMDSS.

Additionally the following is covered in the course.

The student will demonstrate knowledge and understanding of the following STCW elements:

GMDSS-11.14 search and rescue radio communications

GMDSS-11.14 procedures in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual

GMDSS-11.14 means to prevent the transmission of false distress alerts and the procedures to mitigate the effects of such alerts

GMDSS-11.14 ship reporting systems

GMDSS-12.1 provision of radio services in emergencies - abandon ship

GMDSS-12.1 provision of radio services in emergencies - fire on board ship

GMDSS-12.1 provision of radio services in emergencies - partial or full breakdown of radio installations

GMDSS-12.2 Preventive measures for the safety of ship and personnel in connection with

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hazards related to radio equipment, including electrical and non-ionizing radiation hazards

Learning Outcomes

Upon completion of the course the student will be able to operate and stand a radio watch for a shipboard GMDSS station. The student will be able to send distress, safety and urgency messages to ship and shore based radio stations. The student will be exposed to sufficient theoretical knowledge of GMDSS to successfully pass the FCC GMDSS General Operators license (elements 1 & 7).

GMDSS Competencies

There will be 2 chances to demonstrate competencies on each piece of equipment set forth by the US GMDSS Task Force.

- * **Should a student fail to demonstrate competency during the second attempt on any piece of equipment s/he will fail the course.** There will be no exceptions made to this policy.
- * Make-up competencies will be scheduled by appointment only.
- * You must have all Labs completed prior to taking a competency exam. If you miss a Lab you need to make the Lab up. You cannot take an assessment the same day you make up a Lab.

Quizzes will be introduced periodically during the semester

Examinations: There will be two examinations covering all material addressed in the course prior to the exam. A passing grade of **75%** is required for issuance of the STCW'95 endorsement and FCC GMDSS General Operator License.

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Final Grade Calculation:

1) Exam 1	30%
2) Exam 2	30%
3) Quizzes (4) are worth 10% each- lowest dropped	30%
3) GMDSS Voyage Plan	<u>10%</u>
	100%

The following is a breakdown of the final course letter grading:

89.0 - 100.0	A
87.0 – 88.9	A - minus
85.0 – 86.9	B+
83.0 – 84.9	B
81.0 – 82.9	B - minus
79.0 – 80.9	C+
77.0 – 78.9	C
75.0 – 76.9	C- minus
<i>Below 74.9</i>	<i>F</i>

A final course grade **below** C- minus (indicated in red italic) does not satisfy the STCW requirement and constitutes retaking of the entire course (lecture and laboratory) for STCW credit.

Additionally, the FCC element 1 (MROP) & 7 (GMDSS General Operator) licenses are required for issuance of the STCW certificate for OICNW. Students will find test centers for this license at the Federal Communications web site (www.fcc.gov). It is the students' responsibility to arrange to take these tests. The Professor of record is not allowed to administer the FCC tests. MMA does arrange for the test to be given on campus. This is coordinated through the STCW compliance officer.

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8. Attendance Policy

ATTENDANCE AT ALL CLASSES IS MANDATORY.

Make-up examinations for authorized periods of absence will be scheduled during a mutually agreed upon time.

NOTE: Examinations, quizzes and competencies missed as a result of an unauthorized absence will receive a grade of 50. Quizzes and exams will be administered on campus.

9. ONLINE REQUIREMENTS

- A. Students will check blackboard on Sunday evening and frequently for assignments for each week in the semester.
- B. Assignments will be divided into those that can be worked on together and those that cannot be worked on together. Each assignment will stipulate this as part of the instructions.
- C. Exams will be administered online in person at specified times in the announcement section of blackboard. Please do not miss an exam, they are set for a specific time and day and they can only be taken during the given time period. If you miss an exam you receive a 50, no excuses accepted. If you have a hardship please reach out to me and we can work out an accommodation.

11. Syllabus Changes

The syllabus and course schedules are tentative and may be adjusted as required to meet the goals and objectives of the course and the Academy. Notice of changes will be made to students and the Academy as soon as possible.

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10. COURSE OUTLINE AND SCHEDULE

LESSON TOPICS BY CLASS MEETINGS

<i>Week</i>	<i>Lesson Topic</i>
1	Course Overview and Review of Element 1
2	Review of Electronic Navigation- History of GMDSS and SOLAS
3	Part 80 Rules and Regulations / FCC sub element A Quiz 1
4	Communication Procedures/ FCC sub element B
5	Equipment Operations/ FCC sub element C
6	Antennas, EPIRB, SARTS, Survival Craft VHF, NAVTEX FCC sub element D Quiz 2
7	General Information and Systems Overview – FCC sub element A
8	Principles of Communications FCC sub element B Exam 1
9	Part 80 Rules and Regulations – FCC sub element C
10	DSC and Alpha –Numeric ID – FCC sub element D Quiz 3
11	Distress, Safety, and Urgency Communications – FCC sub element E
12	Survival Craft Equipment and SAR – FCC sub element F MSI & VHF-DSC equipment - FCC sub elements G &H- Quiz 4
13	THANKSGIVING BREAK
14	GMDSS Voyage Plan Presentations and review for last exam
15	IMARSAT & MF/HF Communications FCC sub elements I&J - Exam 2

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TO: CAPT. JAMES J. FITZPATRICK Ed.D.

FROM: Enrolled Student

RE: Receipt of Course Documents

I hereby acknowledge that I am in receipt of the Course Syllabus and the Course Schedule for this course. I further acknowledge that CAPT Fitzpatrick has explain the syllabus and course schedule during class and that I have read and understand all sections including class policies. I have had an opportunity to discuss the course and its expectations with CAPT Fitzpatrick.

I acknowledge that I have taken and passed the required pre-requisite course listed below:

- **Pre-requisite: MT3221- Electronic Navigation**

NAME: (print) _____

SIGNATURE: _____

STUDENT ID NUMBER _____

CLASS SECTION: _____

DATE: _____