



Massachusetts Maritime Academy

## **STCW Basic Training**

Course: MT1121 (Credits: 3)  
Fall Semester Academic Year 2013

### **Lecture Instructors:**

Capt. Joseph S. Murphy, II  
Captain Karen Arnold

Office: Bresnahan Bldg. -304C  
Office: Harrington Bldg. 321A

### **Laboratory Instructors:**

Capt. Edward Bruce  
Capt. Kurt DeCiccho  
Mate Edward Vacha

Office: SeaLab  
Office: 321A  
Office: 321A

### **Scope**

This course is designed to introduce all Freshmen students to the necessary subject matter required by STCW Tables for Safety Familiarization and Basic Safety: Tables A VI/1-1, A VI/1-2, A VI/1-3 and A VI/1-4

### **Learning Objective**

At the completion of this course, each cadet will have completed the applicable and identified learning objectives as set forth in the STCW-95-2011 Manila Amended Sections for Safety Familiarization Training (Section A-VI/1-1) and Basic Training (Section A-VI/1-2), and demonstrated their knowledge and proficiencies as required by Tables A VI/1-1, A VI/1-2, A VI/1-3 and A VI/1-4.

### **Course Description**

Upon completion of this course, students will be able to react in a correct manner during emergency situations, take measures appropriate to his/her own survival and to the survival of others, and use survival equipment correctly. Additionally, a student will be able to react in a correct manner in the event of an outbreak of fire, to take appropriate measures for the safety of personnel and of the ship, and to use fire appliances correctly. He/she will also be able to state and demonstrate that he/she has acquired knowledge and skills, which, in some instances, will enable him/her to identify and correct defects and thus prevent emergencies from occurring.

## **Learning Outcomes**

At the conclusion of the course the student will be able to survive at sea in the event of ship abandonment. The student will have demonstrated their knowledge of Emergency signals and procedures, methods of evacuation, use of survival craft and equipment, use of personal lifesaving appliances, survival at sea techniques and emergency communications. Further each student should:

- Have the knowledge and ability to minimize the risk of fire
- Have the knowledge and ability to respond to emergency situations involving fire
- Have the knowledge and ability of fighting and extinguishing fires

## **Entry Standards**

This course is presented in English. Trainees must be able to read, write, speak, and understand English. This course is open to any cadet and must be successfully completed before enrolling for Sea Term aboard the T.S. Kennedy. There are no prerequisite educational requirements. All trainees must be certified by a doctor to be in good health and fit in all respects for training in personal survival.

## **Teaching Facilities and Equipment**

The STCW Basic Training (MT 1121) course will be presented in the Massachusetts Maritime Academy's academic facilities. A classroom or lecture hall equipped with a black/white board or flip chart supported by audio-visual aids when making use of audio-visual materials such as personal computer presentation software, transparencies, videos or slides will be provided for lectures.

In addition, practical demonstrations and/or drills will be conducted at the Academy's fully equipped Sea Laboratory, swimming pool, and waterfront facilities as well as aboard the Training Ship Kennedy, Training Vessel Ranger as well as motor whale boats and monomoys whenever the instruction or practical exercises require access to water or use SOLAS/U.S. Coast Guard approved survival equipment.

## **Training Aids**

- A1 Classroom notes/handouts
- A2 Audio-visual aids: PowerPoint presentations
- A3 Audio-visual aids: Video projector
- A4 Audio-visual aids: Multimedia projector with computer
- A5 Personal computer
- A6 Cutaway equipment
- A7 T.S. Kennedy, equipment and fittings
- A8 T.V. Ranger, equipment and fittings
- A9 Certified lifeboat/gravity davit
  
- A10 Motor whale boat
- A11 USCG certified inflatable liferaft cradle and davit launch/immersion suits

- A12 USCG approved covered lifeboat
- A13 Monomoy (pulling) rowing boat
  
- V1 Water Entry and Survival Techniques (27 minutes)
- V2 Man Overboard, A guide to Rescue and Treatment of Man Overboard Victims (31 minutes)
- V3 Lifeboat Operation and Survival Practices (25 minutes)
- V4 Liferaft Operation and Survival Practices (28 minutes)
- V5 SOCP Personal Survival Techniques Part I
- V6 SOCP Personal Survival Techniques Part II
- V7 Inflatable Life Rafts – (16 minutes)

### **Safety Routines**

Safety precautions during drills are a major component of this course, and affect its organization. Trainees must be protected from danger at all times whilst the course is in progress. Instructors and their assistants must strictly supervise the trainees, and act as their safety guards. First aid supplies, including a resuscitation kit, must be close at hand. If drills are to take place in the sea, a rescue boat must be in attendance.

### **References (R)**

- R1 The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1995 as amended in Manila in 2010.
- R2 International Convention for the Safety of Life at Sea, 1974 (SOLAS 1974), as amended (IMO Sales No. 110 86.02.E)
- R3 Merchant Ship Search and Rescue Manual (MERSAR) (IMO Sales No. 963 86.08.E)
- R4 A Pocket Guide to Cold Water Survival (IMO Sales No. 946 81.03.E)
- R5 International Maritime Organization Model Course 1.19: “Proficiency in Personal Survival Techniques” 2000 Edition
- R6 International Maritime Organization Model Course 1.20: “Proficiency in Fire Prevention and Fire Fighting” 2000 Edition
- R7 International Maritime Organization Model Course 1.23: “Proficiency in Survival Craft and Rescue Boats Other than Fast Rescue Boats” 200 Edition
- R8 *Survival Craft* – Witherby Seamanship International Jan 2008, ISBN 10: 1-905331-35-5
- R9 *Lifeboat Release Hooks* - Witherby Seamanship International Jul 2011, ISBN 10: 1-85609-496-0
- R10 *Shipboard Drills* - Witherby Seamanship International Jun 2012, ISBN 10: 1-85609-554-1

## **Textbooks (T)**

- T1 Hayler, W.B., Keever, J.M. and Seiler, P.M., The Cornell Manual for Lifeboatman, Able Seamen and Qualified Members of the Engine Department, 1 st ed, (Centerville, MD: Cornell Maritime Press, 1984) ISBN 0-87033-313-5
- T2 Brady, R., Marine Fire Prevention, Firefighting and Fire Safety, (Prentice-Hall Publishing) (ISBN 0-87618-994-X)
- T3 Murphy, II, J.S., T.S. Kennedy Vessel Particulars, Standing Orders, Bridge Procedures, and Directions for Keeping the Deck Logbook (Version MMA PSBD 001-1998), as revised, (Buzzards Bay, MA: Massachusetts Maritime Academy, 1998)
- T4 Marine Survival - Witherby Seamanship International May 2011, ISBN 10: 1-85609-355-7

## **Course Structure**

This course is three credits, involving two (2) lectures per week and six three-hour laboratories. The lecture segment will provide theoretical and practical knowledge to demonstrate competency in the topic areas. The laboratory segment (known as Sealab) complements the lectures by providing practical application of the theoretical and to develop the skills necessary to demonstrate proficiency. Lecture syllabus and laboratory schedules are included in this information package.

## **Methods of Demonstrating Competence**

The methods chosen to carry out an evaluation will depend upon what the candidate is expected to achieve in terms of knowledge, comprehension, and application of the course content. The methods used may include:

- Direct observation and participation in classroom training.
- Oral examination a simple question-and-answer discussion with the candidate (either individually or as a group).
- Written tests
- Practical demonstrations

## **Academic Accommodations**

Massachusetts Maritime Academy 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 Professor Fran Tiskevich, Director of Disability Compliance, within the first two weeks of class at [ftiskevich@maritime.edu](mailto:ftiskevich@maritime.edu) Harrington Room H 311A or Extension 2208.

## Examinations and Grading

A minimum of four Examinations/Quizzes will be administered during the lecture segments. The minimum passing grade is 70% for STCW certification. This is determined by averaging all tests, quizzes and homework. Lecture examinations will be announced and given during a full or half lecture period. In the laboratory segments one final exam will be given, which may take the form of either multiple choice or short answer. Both the lecture and laboratory instructors may give unscheduled quizzes at their discretion. Always carry a No. 2 pencil with you to class and to Lab.

### Final Exam

The final exam will be held during the final exam week in December. The final examination will consist of questions on information covered over the semester.

### Final Grade

Quizzes, unit exam and final exam	80%
SeaLab quizzes	<u>20%</u>
	100%

The following is a breakdown of the final course grading:

93.0-100	A	70.0-72.9	C-
90.0-92.9	A-	67.0-69.9	D+
87.0-89.9	B+	63.0-66.9	D
83.0-86.9	B	60.0-62.9	D-
80.0-82.9	B-	< 60.0	F
77.0-79.9	C+		
73.0-76.9	C		

Failure to complete laboratory STCW demonstrations will result in an incomplete for the course until satisfied. A grade below C- will require a repeat of the entire course.

### Practical Assessment:

During MT-1121 STCW Basic Training Lab Portion you will have a review of the use and donning of the Survival Suit. You will have to demonstrate your proficiency in donning the suit during this Sea Lab. This is a pass/fail practical assessment, a copy of which is included in this paragraph. You are required to PASS this practical assessment in order to pass this course. Should you fail the assessment, or not do the assessment, you will receive an incomplete in this course until such time as a reassessment can be scheduled and you pass it. At that time, your appropriate grade will be entered for you, and ONLY THEN, will you be eligible for Freshman Sea Term.

**Condition**

In a swimming pool or suitable protected waters.

**Behavior**

1. Don an immersion suit.
2. Demonstrate ability to shift from prone to upright position while in the water wearing an immersion suit.

**Standard**

- Straps are secured to prevent entanglement.
- Donning completed within two minutes without assistance.
- Describe use of suit features: whistle, light, inflation tube, etc.

**Attendance Policy**

ATTENDANCE AT ALL CLASSES AND LABORATORIES IS MANDATORY. Cadets repeating this class must retake all sections and the laboratory. Unauthorized absence will not be tolerated. Disciplinary action and/or grade point reduction will be administered to repeat offenders. More than four (4) absences from classroom lectures and/or SeaLabs will result in a failure of the course.

Instructors will dismiss cadets who are found sleeping in class. Dismissal from class will be considered an absence for that class.

If absences occur due to illness, the student must notify the instructor as soon as possible for make-up work and assignments. The instructor must be informed of all special liberty requests well in advance of the respective date. Authorized absences must be reported to the instructor prior to the missed class. Make-up examinations for authorized absences will be scheduled for a mutually agreed upon time. All work and examinations missed, as a result of an unauthorized absence, will result in a ZERO.

**Syllabus Changes**

The syllabus and course schedule is tentative and may be adjusted as required. Notice of changes will be made to cadets as soon as possible.

**Classroom and Laboratory Policies**

Cadets will wear the appropriate uniform of the day when in the classroom, and the issued boiler suits while in SeaLab. Commuter students should wear clothing to SeaLab that is appropriate to the subject matter and will launder easily. Every cadet will bring their "Youngie" gear to all classes. Laboratories will be conducted in all weather conditions. Always bring appropriate clothing, such as a warm jacket and rain gear. Cadets will not be excused from SeaLab because of the lack of a jacket or rain gear. Pocket knives are required at all times.

Eating, drinking, or the use of tobacco products are prohibited during all classes and laboratories.

Cell phones are not allowed at any time during class or SeaLab.

# STCW BASIC TRAINING LECTURE SCHEDULES

Wk	Lect.	Meeting	Topic
1	1	1	a. Introduction to Basic Safety & Personal Survival
1			
2	1	2	b. Principles of survival at sea
2	2	3	c. Emergency situations
3	1	4	d. Survival craft and rescue boats
3	2	5	e. Survival craft and rescue boats
4	1	6	f. Survival craft and rescue boats
4	2	7	g. Personal lifesaving appliances
5	1	8	h. Personal lifesaving appliances
5	2	9	i. Dangers to survivors
6	1	10	j. Cold water survival
6	2	11	k. Cold water survival
7	1	12	l. Use of survival craft
7	2	13	m. Use of survival craft
8	1	14	n. Station Bill, Bunk Cards, Duties in Emergencies
8	2	15	o. Emergency Signals & Internal Communications
9	1	16	p. Fire 1 – Importance and Duties of Fire Patrol
9	2	17	q. Fire 2 – TS KENNEDY Firefighting Organization
10	1	18	r. Fire 3 – TS KENNEDY Detection Systems
10	2	19	s. Fire 4 –TS KENNEDY Fixed Extinguish Systems
11	1	20	t. Fire 5 – TS KENNEDY Fire Plan – Read/Use
11	2	21	u. Fire 6 – First Responder Actions/Alarms
12	1	22	v. Actions to be taken in various emergencies
12	2	23	w. Value of Training and Drills
13	1	24	x. Watchstanding – Lookout
13	2	25	y. Watchstanding – Gear, Duties, Relief & Watch

## **STCW BASIC TRAINING LABS MT 1121L**

### **Syllabi and Schedule**

1. Vessel Familiarization – KENNEDY tour, Detex Locations, Compartments, WT Bulkheads, WT Doors, Self Closing Doors, Fire Detectors, Escape Routes, Muster Stations, Lifeboat Stations, Liferaft Stations, Hazards aboard ship.
2. Intro to Lifeboats – Utilizing dockside Davit Lifeboat – Demonstrate lowering from outside, lowering from inside, demonstrate start up of engine, show where all equipment aboard is, demonstrated streaming of drogue, use of signaling equipment aboard.
3. Intro to Rowing - Rowing Commands to be exactly same as used in orientation. Practice Rowing
4. Survival Suits and Immersion Suits and Lifejackets
5. Station Bills and Bunk Cards, Emergency Signal Responses- Do actual drill from various compartments on KENNEDY, Different PA Announcements
6. Portable Fire Fighting Equipment KENNEDY Locations, and their use.  
Fixed Fire Fighting Equipment KENNEDY Locations, and their use.
7. Intro to Marlinspike seamanship – Knots & Splices
8. Mooring Safety – Linehandling – Snap Back, Tugs, Letting go lines, Gloves, PPE, Stand in Bights.
9. Shipboard Safety Equipment – Lifeboats, Liferafts, Line Throwing Equipment, Pyrotechnics, Whistle, Bell, Gong.
10. Watchstanding positions on board: Messenger, Detex Rounds, Lookout, Point System, bell, bearing circle, relative bearings.  
Communication systems aboard – Demo and use sound powered phone in Sea Lab and on KENNEDY .
11. Doors/ Hatches/ Portholes – Opening Closing – Hooks, Rolling hazards, Fire Hazards, Fire Hose Cut Outs, Remote Closing Doors, Fire Doors, Lights at night, Remote WT Doors, operation and use of, sealing WT Door, Opening in fire situation. Practice on WTD in Sea Lab and on KENNEDY. Cargo Hatches and Side Ports



## STCW Basic Training MT-1121 Lab Scheduling

1. Lab meets every week for three hours per week, Meeting times
  - a. M, T, W, T, F 0800-1050
  - b. M, T, W, T, F 1200-1450 or 1300-1550
2. Time divided as follows
  - a. 6 three hour Basic Training Labs
  - b. 6 three hour Shipboard Maintenance Labs
3. Instructors
  - a. Ship's crew provides instructor/supervisor for Shipboard Maintenance Labs
  - b. MT Department provides 2 instructors for each Basic Training Labs
4. Students are divided into lab sections of no more than 22 students.
5. Two sections are assigned to each lab, which alternate between Basic Training one week, Shipboard Maintenance the following week. Any remaining time used for assessment or make-ups.
6. Sections are numbered with the following two-digit code:
  - a. First digit = day of week
  - b. Second digit = period lab starts

	<b>Monday</b>	<b>Tuesday</b>	<b>Wed.</b>	<b>Thurs.</b>	<b>Friday</b>
<b>AM</b>	11, 61	21, 71	31, 81	41, 91	51, 01
<b>PM</b>	15, 65	25, 75	35, 85	54, 95	55, 05

### Maximum Lab Capacity

10 labs/semester  $\times$  2 groups/lab  $\times$  22 students/group =

**440 students maximum per semester**

## STCW Basic Training Memorandum of Understanding

The classroom policies and syllabus were reviewed in class by the instructor and I understand the following:

1. I understand there is no eating, drinking or chewing gum in the classroom.
2. I understand there is a laboratory component to this class. I understand if I am enrolled in the Basic Training, I must be enrolled in the SeaLab portion. It is the students' responsibility to contact the registrar in the first week of the semester if they are not enrolled in both the classroom and SeaLab. If you are repeating the course, you must repeat all of the lectures and all of the laboratory classes.
3. I understand if I exceed a total of four hours of missed class and/or laboratory for any reason, I fail the course. STCW requirements dictate fulfilling the hour requirements. Failure of STCW Basic Training excludes me from making any sea term. The total hours missed combined between the **lab and class** portions cannot exceed four hours. (NOTE: One Lab counts as three hours) I understand that special liberties do not excuse me from class, only regimental activities. Basic Training Instructors do not sign special liberties.
4. I understand that there is no sleeping in class. Failure to stay awake in class may result in being excused from class and being given an absence, put on report, or some other disciplinary action. If a cadet feels that he/she may fall asleep, they are to stand up.
5. I understand as a military courtesy, students are to come to attention when an instructor enters the classroom.
6. I understand that missing an exam will result in a grade of zero for that exam.
7. I understand as a cadet training to be a Professional Mariner, I will behave in a manner expected of a cadet in a regimental environment and a manner that positively reflects upon me and the academy.

Signed,

---

Cadet's Signature

Student ID Number:

Instructor