

## Course Outline

<b>Course Outline</b>	<b>Approximate time (hours)</b>
Knowledge, understanding and proficiency	Lectures, demonstrations and practical work
Introduction, safety and principles	0.5

### Competence 1: Minimize the Risk of fire

<b>Course Outline</b>	<b>Approximate time (hours)</b>
Knowledge, understanding and proficiency	Lectures, demonstrations and practical work
<b>Concept and application of the fire triangle to fire and explosion</b> 1.1 Conditions for fires 1.2 Properties of flammable materials	0.5
<b>Types and sources of ignition</b> 1.3 Fire prevention principles	0.25
<b>Flammable materials commonly found on board</b> 1.4 Spread of fire 1.5 Safe practices	0.75
<b>Need for constant vigilance</b> 1.6 Need for constant vigilance 1.7 Patrol systems	0.5
<b>Fire hazards</b> 1.8 Fire hazards	0.5
Sub-total	2.5

### Competence 2: Maintain a state of readiness to respond to emergency situations involving fires

<b>Course Outline</b>	<b>Approximate time (hours)</b>
Knowledge, understanding and proficiency	Lectures, demonstrations and practical work
<b>Organization of shipboard fire fighting</b> 2.1 General emergency alarm 2.2 Fire control plans and muster list 2.3 Communications 2.4 Personnel safety procedures 2.5 Periodic shipboard drills	1.0
<b>Location of fire-fighting appliances and emergency escape routes</b> 2.6 Ship construction arrangements 2.7 Emergency fire pump (cargo ships) 2.8 Chemical powder applicants 2.9 Emergency escape routes	0.75

<b>Course Outline</b>	<b>Approximate time (hours)</b>
<b>Knowledge, understanding and proficiency</b>	<b>Lectures, demonstrations and practical work</b>
<b>Fire spread in different parts of a ship</b> 2.10 Fire spread	0.25
<b>Fire and smoke detection measures on ships and automatic alarm systems</b> 2.11 Fire and smoke detection systems 2.12 Automatic fire alarm	0.75
<b>Classification of fires and applicable extinguishing agents</b> 2.13 Classification of fires and appropriate extinguishing agents	0.25
Sub-Total	3.0

### **Competence 3: Fight and Extinguish Fires**

<b>Course Outline</b>	<b>Approximate time (hours)</b>
<b>Knowledge, understanding and proficiency</b>	<b>Lectures, demonstrations and practical work</b>
<b>Selection of fire-fighting appliances and equipment.</b> 3.1 Fire hoses and nozzles 3.2 Mobile apparatus 3.3 Portable fire extinguishers 3.4 Fireman's outfit 3.5 Fire blankets 3.6 Knowledge of fire safety arrangements 3.7 Fire alarms and first actions 3.8 Fire fighting 3.9 Fire-fighting mediums 3.10 Fire-fighting procedures 3.11 Small fires 3.12 Extensive fires	5.0
<b>Precautions for and use of fixed installations</b> 3.13 General 3.14 Smothering effect systems: carbon dioxide (CO <sub>2</sub> ) and foams 3.15 Inhibitor effect systems: powders 3.16 Cooling effect systems: sprinklers, pressure spray	1.0
<b>Use of breathing apparatus for fighting fires</b> 3.17 Breathing apparatus 3.18 Drills in smoke-filled spaces	2.5
<b>Use of breathing apparatus for effecting rescues</b> 3.19 Use of breathing apparatus	0.5
Sub-total	9.0

**Total**

**15.00**

## Chapter I: Shipboard Fire-fighting Organisation

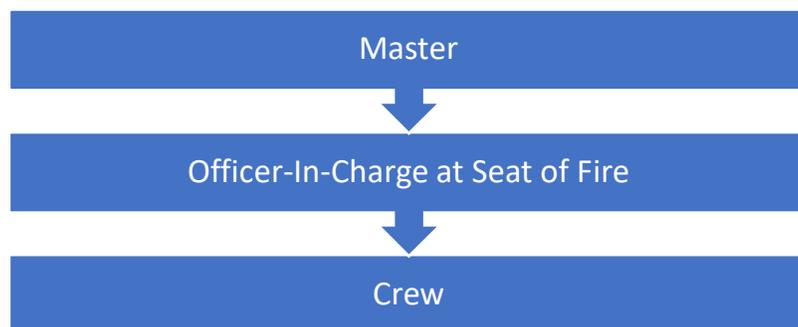
The essential ingredients for success in any emergency are readiness and organisation. To achieve this, it is essential for the organisation on the vessel is complete and that the crew is familiar with it is well trained and prepared for any emergency.

On board ship, "the crew constitutes the emergency services, especially the fire brigade. Every vessel has a normal chain of command from the master through his officers to the crew. This chain of command does not change during emergencies - the master and his department heads remain responsible for the actions and efforts of the crew. The Muster List details the duties of crew members in the event of emergencies. All necessary fire-fighting equipment is carried on board, and regular drills and training sessions are carried out to ensure that the crew is capable of using that equipment properly and carrying out their assigned duties. Therefore, all the elements of an emergency service are available and the effectiveness of the crew as a fire-fighting force depends on how well these elements are assembled.

### Flow of Communications

Communication between fire parties and the officer-in-charge at the seat of the fire and the central control station is necessary to maintain safety and organisation. Methods of communication include:

- telephones
- loudhailers
- hand - held radios
- messengers



### Information

The officer-in-charge at the seat of the fire should be ready to provide the following information to the central control station (the Bridge).

- The time the fire alarm was sounded