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<b>Compiled by</b>	<b>QMA Officer Senior Examiners – Deck, Engine &amp; Radio</b>
<b>Approved by</b>	<b>Chief Examiner</b>
<b>Approval date</b>	<b>15/03/2016</b>
<b>Effective Date</b>	<b>21/03/2016</b>

# Operations – Seafarer Examinations

## Guidance Note

South African Maritime Qualifications Code

2016 Matrix

## List of reviews and revisions

The Chief Examiner shall cause the Matrix to be reviewed annually and presented at the first syllabus committee meeting of each year. It shall also be reviewed under the following circumstances;

1. Immediately after amendments to the Regulations and/or the STCW Convention;
2. At the request of the Syllabus or the Qualifications Committees; and
3. When discrepancies between the Matrix, Regulations and the STCW Convention are identified

<b>Date</b>	<b>Rev no</b>	<b>Summary of Changes</b>	<b>Origins of Changes</b>	<b>Approved by</b>
15 March 2016	1.0	Changes to the document format and grouping of certificates in categories to allow for ease of reference.	Align the matrix and requirements with the STCW Convention.	Chief Examiner



## Explanatory Notes

The South African Maritime Qualifications Code (the SAMSA Code or the Code) Matrix is the breakdown of the requirements for each certificate of competency or proficiency for officers and ratings respectively. The South African Maritime Safety Authority (SAMSA or the Authority) is required by Regulations<sup>1</sup> to create the Code to ensure compliance with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW Convention). The Code is divided into the following sections/parts;

1. Part 1 – Deck STCW Convention requirements (for seagoing ships  $\geq$  500 GT, excluding fishing vessels) including GMDSS
2. Part 2 – Engine STCW Convention requirements (for seagoing ships  $\geq$  750 kW and  $\geq$  500 GT, excluding fishing vessels)
3. Part 3 – Deck STCW Convention requirements (for seagoing ships  $\geq$  25 GT but  $<$  500 GT, excluding fishing vessels)
4. Part 4 – Engine STCW Convention requirements (for seagoing ships  $\geq$  50kW and  $\geq$  25 GT but  $<$  500 GT, excluding fishing vessels)
5. Part 5 – Deck Fishing Vessels requirements
6. Part 6 – Engine Fishing Vessels requirements
7. Part 7 – Radio Certificates of Competency
8. Part 8 – Deck Port Operations requirements
9. Part 9 – Engine Port Operations requirements
10. Part 10 – Certificates of Proficiency (Deck Ratings)
11. Part 11 – Certificates of Proficiency (Engine Ratings)

<sup>1</sup> Merchant Shipping (Safe Manning, Training and Certification) Regulations, 2013, as amended

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**Part 1 – Deck STCW Convention requirements.**

<b>Requirements</b>	<b>Officer in Charge of Navigational Watch</b>	<b>Chief Mate (&lt;3000 GT)</b>	<b>Master (&lt; 3000 GT)</b>	<b>Chief Mate</b>	<b>Master</b>
<b>Academic Requirements</b>	<b>Required Modules</b>				
<i>Chartwork</i>	1 to 4	1 to 5	1 to 5	1 to 5	1 to 5
<i>Celestial Navigation</i>	1 to 3	1 to 5	1 to 5	1 to 5	1 to 5
<i>Electronic Navigation Systems</i>	1 & 2	1 to 4	1 to 4	1 to 4	1 to 4
<i>Naval Architecture</i>	1 to 5	1 to 10	1 to 10	1 to 10	1 to 10
<i>Cargo Handling and Stowage</i>	1 to 3	1 to 4	1 to 4	1 to 4	1 to 4
<i>Ship Power Plants</i>	-	1 & 2	1 & 2	1 & 2	1 & 2
<i>Personnel Management and Ship Master's Business</i>	1 to 4	1 to 8	1 to 8	1 to 8	1 to 8
<i>Marine Environmental Studies</i>	1 to 3	1 to 5	1 to 5	1 to 5	1 to 5
<i>Ship Manoeuvring and Handling</i>	1	1 & 2	1 & 2	1 & 2	1 & 2
<i>Emergency Procedures</i>	1	1 & 2	1 & 2	1 & 2	1 & 2
<i>Communications</i>	1	1	1	1	1
<i>Applied Marine Science and Maths</i>	1, 2 & 4	1, 2 & 4	1, 2 & 4	1, 2 & 4	1, 2 & 4
Survival Craft and Rescue Boat other than Fast Rescue Boats	X	X	X	X	X
<b>Basic Training</b>					
<i>Personal Survival Techniques</i>	X	X	X	X	X
<i>Personal Safety and Social Responsibilities</i>	X	X	X	X	X
<i>Fire prevention &amp; fire fighting</i>	X	-	-	-	-
<i>Medical first aid</i>	X	-	-	-	-
Designated Security Duties	X	-	-	-	-
Medical Care	-	X	X	X	X
Advanced Fire fighting	X	X	X	X	X
Able seafarer Deck	X	X	-	X	-
Long Range Certificate	-	-	-	-	-
GMDSS General Operator's Certificate	X	X	X	X	X
ECDIS – Generic Course	X	X	X	X	X
Electronic Navigation Systems (Operational) – incl. Simulator	X	-	-	-	-

<b>Requirements</b>	<b>Officer in Charge of Navigational Watch</b>	<b>Chief Mate (&lt;3000 GT)</b>	<b>Master (&lt; 3000 GT)</b>	<b>Chief Mate</b>	<b>Master</b>
Electronic Navigation Systems (Management) – incl. Simulator	-	X	X	X	X
Ship Security Officer	-	X	X	X	X

## Part 2 – Engine STCW Convention requirements,

**Table 1- STCW Requirements**

Requirements	Electro-Technical Officer	Officer in Charge of Engineering Watch	Second Engineer (<3000 kW) <sup>2</sup>	Chief Engineer (< 3000 kW) <sup>3</sup>	Second Engineer <sup>4</sup>	Chief Engineer
<b>Academic Requirements –</b>	<b>Required Modules</b>					
<i>General Engineering Science / Applied Mechanics</i>	-	1	1 to 4	1 to 4	1 to 4	1 to 4
<i>Electronics (Industrial Electronics)</i>	2	-	Electronics	Electronics	Electronics	Electronics
<i>Heat Engines/ Thermodynamics</i>	-	1 & 2	1 to 5	1 to 5	1 to 5	1 to 5
<i>Drawings</i>	-	1	1	1	1	1
<i>Applied Marine Science</i>	-	1	1 & 3	1 & 3	1 & 3	1 & 3
<i>Electro technology</i>	1 - 3	1 & 2	1 to 3	1 to 3	1 to 3	1 to 3
<i>Naval Architecture</i>	-	1 to 6	1 to 6, 7, 8, 11 to 14	1 to 6, 7, 8, 11 to 14	1 to 6, 7, 8, 11 to 14	1 to 6, 7, 8, 11 to 14
<i>Business</i>	1 to 4	1 to 4	1 to 4 & 6 to 7	1 to 4 & 6 to 7	1 to 4 & 6 to 7	1 to 4 & 6 to 7
<i>Engineering Knowledge</i>	-	1	1 to 3	1 to 3	1 to 3	1 to 3
<i>Network Systems</i>	2	-	-	-	-	-
<i>Power Electronics</i>	3	-	-	-	-	-
<i>Electrical Machines</i>	3	-	-	-	-	-
<i>Process Instrumentation</i>	2	-	-	-	-	-
<i>Electrical Protection</i>	3	-	-	-	-	-
Survival Craft and Rescue Boat other than Fast Rescue Boats	X	X	X	X	X	X
<b>Basic Training</b>						

<sup>2</sup> The requirements for 2<sup>nd</sup> Engineer (<3000 kW), Chief Engineer (<3000 kW) and Second Engineer's academic qualifications to be the same as Chief Engineer. This will be required from 01 July 2017. Current requirements (as reflected in Table 1a- STCW Requirements) to have completed up to S3 level shall be accepted for application received on or before 30 June 2017

<sup>3</sup> Ditto

<sup>4</sup> Ditto

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<b>Requirements</b>	<b>Electro-Technical Officer</b>	<b>Officer in Charge of Engineering Watch</b>	<b>Second Engineer(&lt;3000 kW)<sup>2</sup></b>	<b>Chief Engineer (&lt; 3000 kW)<sup>3</sup></b>	<b>Second Engineer<sup>4</sup></b>	<b>Chief Engineer</b>
<i>Personal. Survival Techniques</i>	X	X	X	X	X	X
<i>Personal Safety and Social Responsibilities</i>	X	X	X	X	X	X
<i>Medical first aid</i>	X	X	X	X	X	X
<i>Fire prevention &amp; fire fighting</i>	X	X	-	-	-	-
Designated Security Duties	X	X	X	X	X	X
Medical Care	-	-	-	-	-	-
Advanced Fire fighting	X	X	X	X	X	X
High Voltage <sup>5</sup>	Required. If not provided, CoC will be endorsed with limitation					

<sup>5</sup> May be allowed to provide alternative education/training in accordance with Higher Education electrical qualifications.

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Table 1a – STCW Requirements<sup>6</sup>

	Officer in Charge of Engineering Watch	Second Engineer <3000kW	Chief Engineer <3000kW	Second Engineer >3000kW	Chief Engineer >3000kW
<b>Academic Requirements</b>					
<i>General Engineering Science /Applied Mechanics</i>	1	1 to 2	1 to 3	1 to 3	1 to 4
<i>Heat Engines/ Thermodynamics</i>	1 and 2	1 to 3	1 to 5	1 to 5	1 to 5
<i>Engineering Drawing</i>	1	1	1	1	1
<i>Applied Marine Science</i>	1	1	1 and 3	1 and 3	1 and 3
<i>Electrotechnology</i>	1 and 2	1 and 2	1 to 3	1 to 3	1 to 4
<i>Naval Architecture</i>	1 to 6	1 to 6, 7, 8, 11 and 12	1 to 6, 7, 8, 11 and 12	1 to 6, 7, 8, 11 and 12	1 to 6, 7, 8, 9 and 11 to 14
<i>Personnel Management &amp; Ship Master's Business</i>	1 to 4	1 to 4 and 6	1 to 4 and 6 to 7	1 to 4 and 6	1 to 4 and 6 to 7
<i>Engineering Knowledge</i>	1	1 and 2	1 to 3	1 and 2	1 to 3
<i>Industrial Electronics 2</i>		X	X	X	X
<i>Control Systems 2</i>		X	X	X	X
Survival craft & RB	X	X	X	X	X
<b>Basic Training</b>					
<i>Medical First Aid</i>	X	X	X	X	X
<i>Fire prevention &amp; Firefighting</i>	X				
<i>Personal Survival Techniques</i>	X	X	X	X	X
<i>Personal Survival and Social Responsibilities</i>	X	X	X	X	X
Advanced Firefighting		X	X	X	X
Designated Security Duties	X	X	X	X	X
High Voltage Training	X	X	X	X	X

<sup>6</sup> The requirements in the table below are applicable until 30 June 2017

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Table 2 - Equivalent Subjects: Universities

Requirements	Electro-Technical Officer	Officer in Charge of Engineering Watch	Second Engineer(<3000 kW)	Chief Engineer (< 3000 kW)	Second Engineer	Chief Engineer
Academic Requirements						
<i>General Engineering Science / Applied Mechanics</i>	-	<i>Fluid Mechanics 2 Mechanics 1</i>	<i>Fluid Mechanics 2 Mechanics 1 Mechanics of Machines 2 Strength of Materials 2 Fluid Mechanics 2</i>	<i>Fluid Mechanics 2 Mechanics 1 Mechanics of Machines 2 Strength of Materials 2 Fluid Mechanics 2</i>	<i>Fluid Mechanics 2 Mechanics 1 Mechanics of Machines Strength of Materials 2 Fluid Mechanics 2</i>	<i>Fluid Mechanics 2 Mechanics 1 Mechanics of Machines 2 Strength of Materials 2 Fluid Mechanics 2</i>
<i>Electronics</i>	<i>Electronics 2</i>	-	<i>Industrial Electronics 2</i>	<i>Industrial Electronics 2</i>	<i>Industrial Electronics 2</i>	<i>Industrial Electronics 2</i>
<i>Heat Engines/ Thermodynamics</i>	-	<i>Thermodynamics 2</i>	<i>Thermodynamics 3</i>	<i>Thermodynamics 3</i>	<i>Thermodynamics 3</i>	<i>Thermodynamics 3</i>
<i>Drawings</i>	-	<i>Drawing 1</i>	<i>Drawing 1</i>	<i>Drawing 1</i>	<i>Engineering Drawing 1</i>	<i>Drawing 1</i>
<i>Applied Marine Science</i>	-	<i>Mathematics 1</i>	<i>Mathematics 1</i>	<i>Mathematics 1</i>	<i>Mathematics 1</i>	<i>Mathematics 1</i>
<i>Electro technology</i>	-	<i>Electrotechnology 1</i>	<i>Electrotechnology 1 Electrotechnology 2</i>	<i>Electrotechnology 1 Electrotechnology 2</i>	<i>Electrotechnology 1 Electrotechnology 2</i>	<i>Electrotechnology 1 Electrotechnology 2</i>
<i>Naval Architecture</i>	-	<i>Naval Architecture 1</i>	<i>Naval Architecture 1 Naval Architecture 2 Naval Architecture 3</i>	<i>Naval Architecture 1 Naval Architecture 2 Naval Architecture 3</i>	<i>Naval Architecture 1 Naval Architecture 2 Naval Architecture 3</i>	<i>Naval Architecture 1 Naval Architecture 2 Naval Architecture 3</i>
<i>Business</i>	-	<i>Legal Knowledge 1(A) or Marine Law 1</i>	<i>Legal Knowledge 1(A) or Marine Law 1</i>	<i>Legal Knowledge 1(A and B) or Marine Law 2</i>	<i>Legal Knowledge 1(A and B) or Marine Law 2</i>	<i>Legal Knowledge 1(A and B) or Marine Law 2</i>

Requirements	Electro-Technical Officer	Officer in Charge of Engineering Watch	Second Engineer(<3000 kW)	Chief Engineer (< 3000 kW)	Second Engineer	Chief Engineer
<i>Engineering Knowledge</i>	-	<i>Marine Engineering Knowledge 1(A)</i>	<i>Marine Engineering Knowledge 1 and 2 Marine Engineering Knowledge 3</i>	<i>Marine Engineering Knowledge 1 and 2 Marine Engineering Knowledge 3</i>	<i>Marine Engineering Knowledge 1 and 2 Marine Engineering Knowledge 3</i>	<i>Marine Engineering Knowledge 1 and 2 Marine Engineering Knowledge 3</i>
<i>Network Systems</i>	<i>Network Systems 2</i>	-	-	-	-	-
<i>Power Electronics</i>	<i>Power Electronics 3</i>	-	-	-	-	-
<i>Electrical Machines</i>	<i>Electrical Machines 3</i>	-	-	-	-	-
<i>Process Instrumentation</i>	<i>Process Instrumentation 2</i>	-	-	-	-	-
<i>Electrical Protection</i>	<i>Electrical Protection 3</i>	-	-	-	-	-

**Table 3 - Equivalent Subjects: TVET Colleges**

<b>Requirements</b>	<b>Officer in Charge of Engineering Watch</b>	<b>Second Engineer(&lt;3000 kW)</b>	<b>Chief Engineer (&lt; 3000 kW)</b>	<b>Second Engineer</b>	<b>Chief Engineer</b>
<b>Academic Requirements</b>					
<i>General Engineering Science / Applied Mechanics</i>	<i>N4 Engineering Science N4 Mechanotechnics</i>	<i>N4 Engineering Science N6 Mechanotechnics N6 Strength of Materials and Structures N5 Fluid Mechanics</i>	<i>N4 Engineering Science N6 Mechanotechnics N6 Strength of Materials and Structures N5 Fluid Mechanics</i>	<i>N4 Engineering Science N6 Mechanotechnics N6 Strength of Materials and Structures N5 Fluid Mechanics</i>	<i>N4 Engineering Science N6 Mechanotechnics N6 Strength of Materials and Structures N5 Fluid Mechanics</i>
<i>Electronics</i>	<i>N3 Industrial Electronics</i>	<i>N3 Industrial Electronics</i>	<i>N3 Industrial Electronics</i>	<i>N3 Industrial Electronics</i>	<i>N3 Industrial Electronics</i>
<i>Heat Engines/ Thermodynamics</i>	<i>N5 Power Machines</i>	<i>N6 Power Machines</i>	<i>N6 Power Machines</i>	<i>N6 Power Machines</i>	<i>N6 Power Machines</i>
<i>Drawings</i>	<i>N3 Engineering Drawings</i>	<i>N 3 Engineering Drawings</i>	<i>N 3 Engineering Drawings</i>	<i>N 3 Engineering Drawings</i>	<i>N 3 Engineering Drawings</i>
<i>Applied Marine Science</i>	<i>N4 Mathematics</i>	<i>N4 Mathematics</i>	<i>N4 Mathematics</i>	<i>N4 Mathematics</i>	<i>N4 Mathematics</i>
<i>Electro technology</i>	<i>N4 Electrotechnics N3 Industrial Electronics</i>	<i>N6 Electro technics N6 Electro technics N3 Industrial Electronics N6 Control Systems</i>	<i>N6 Electro technics N6 Electro technics N3 Industrial Electronics N6 Control Systems</i>	<i>N6 Electro technics N6 Electro technics N3 Industrial Electronics N6 Control Systems</i>	<i>N6 Electro technics N6 Electro technics N3 Industrial Electronics N6 Control Systems</i>
<i>Naval Architecture</i>	<i>To be completed at Universities only</i>				
<i>Business</i>					
<i>Engineering Knowledge</i>					

**Part 3 – Deck STCW Convention requirements (for seagoing ships ≥ 25 GT but < 500 GT, excluding fishing vessels)**

	Master (<200GT near coastal)	Master (<200GT)	Mate (<500 Near coastal)	Mate (<500GT)	Master (< 500 GT Near Coastal)	Master (<500GT)
<b>Academic requirements</b>	<b>Required Modules</b>					
<i>Chart - work</i>	1 & 2	1 to 3	1 to 3	1 to 3	1 to 5	1 to 5
<i>Celestial Navigation</i>	-	1 & 2	1 & 2	1 & 2	1 & 2	1 to 3
<i>Electronic Navigation Systems.</i>	1 to 2	1 to 2	1 to 2	1 to 3	1 to 2	1 to 3
<i>Naval Architecture</i>	1	1	1 to 3	1 to 3	1 to 5	1 to 5
<i>Cargo Handling &amp; Stowage</i>	-	-	1 to 3	1 to 3	1 to 4	1 to 4
<i>Ship Power Plants</i>	-	-	-	-	1	1 & 2
<i>Personnel Management &amp; Ship Master's Business</i>	1 & 2	1 to 3	1 to 4	1 to 4	1 to 5	1 to 8
<i>Marine Environmental Studies</i>	1	1 & 2	1	1	1 & 2	1 to 5
<i>Ship Manoeuvring &amp; Handling</i>	1	1	1	1	1 & 2	1 & 2
<i>Emergency Proc.</i>	1	1	1	1	1 & 2	1 & 2
<i>Communications</i>	-	1	1	1	1	1
<i>Applied Marine Science &amp; Maths</i>	-	-	-	-	-	-
Survival Craft & Rescue Boat	-	-	X	X	X	X
<b>Basic Training</b>						
<i>Personal Survival Techniques</i>	X	X	X	X	X	X
<i>Personal Survival &amp; Social Responsibilities</i>	X	X	X	X	X	X
<i>Medical first aid</i>	X	X	X	X	-	-
<i>Fire prevention &amp; fire fighting</i>	X	X	-	-	-	-
Medical Care	-	-	-	-	X	X
Advanced Fire fighting	-	-	X	X	X	X
Able seafarer Deck	-	-	X	X	X	X
Long Range Certificate (Radio)	X	X	-	-	-	-
GMDSS General Operator Certificate	-	-	X	X	X	X
ECDIS	-	-	X	X	X	X

**Part 4 – Engine STCW Convention requirements (for seagoing ships ≥ 50kW and ≥ 25 GT but < 500 GT, excluding fishing vessels)**

<b>Certification</b>	<b>Marine Motorman Grade 2</b>	<b>Marine Motorman Grade 1</b>	<b>Marine Motorman Higher Grade</b>
<b>Academic Requirements</b>	<b>Required Modules</b>		
<i>Naval Architecture</i>	1	1 to 2	1 to 4
<i>Personnel Management and Ship Master's Business</i>	1	1 to 3	1 to 4
<i>Engineering Knowledge</i>	1	1	1
<i>Emergency Procedures</i>	1	1	1 to 2
<i>Electrotechnology</i>	-	-	-
<i>Applied Marine Science and Mathematics</i>	-	-	-
<i>Engineering Drawing</i>	-	-	-
<i>General Engineering Science / Applied Mechanics</i>	-	-	-
<i>Heat Engines / Thermodynamics</i>	-	-	-
Proficiency in Survival Craft and Rescue Boats	-	-	X
<b>Basic Training</b>			
<i>Personal Survival Techniques</i>	X	X	X
<i>Personal Survival and Social Responsibilities</i>	X	X	X
<i>Medical First Aid at Sea</i>	X	X	X
<i>Fire Prevention and fighting</i>	X	X	X
Advanced Fire-fighting	-	-	X

## Part 5 – Deck Fishing Vessels requirements<sup>7</sup>

The table below groups' certificates available for fishing, with the primary qualifications listed in the table. The different CoC's are;

1. Deck Officer (fishing)
  - a. Deck Officer (<24m)
  - b. Deck Officer (≥24m)
2. Skipper (fishing < 24m)
  - a. Skipper (fishing < 24m – limited waters)
  - b. Skipper (fishing < 24m – unlimited waters)
3. Skipper (Fishing ≥24 metres)
  - a. Skipper (Fishing ≥24 metres – limited water)
  - b. Skipper (Fishing ≥24 metres – unlimited waters)

Certification	Deck Officer (Fishing)	Skipper (Fishing < 24 m)	Skipper (Fishing ≥24 m)
<b>Academic Requirements</b>	<b>Required Modules</b>		
<i>Chartwork</i>	1 to 3	1 to 4	1 to 4
<i>Celestial Navigation</i>	-	-	1
<i>Electronic Navigation Systems</i>	1 to 2	1 to 2	1 to 2
<i>Naval Architecture</i>	1 to 2	1 to 4	1 to 5
<i>Ship's Power Plant</i>	1	1	1
<i>Personnel Management and Ship Master's Business</i>	1-2 and 6	1 to 6	1 to 6
<i>Marine Environmental Studies</i>	1	1	1 to 2
<i>Ship Manoeuvring and Handling</i>	1	1 to 2	1 to 2
<i>Emergency Procedures</i>	1 to 2	1 to 2	1 to 2
<i>Communications</i>	1	1	1
Proficiency in Survival Craft & Rescue Boats	-	-	X
<b>Basic Training</b>			
<i>Personal Survival Techniques</i>	X	X	X
<i>Personal Survival and Social Responsibilities</i>	X	X	X
<i>Fire prevention and fire fighting</i>	X	X	-
<i>Medical First Aid</i>	X	X	-
Competence in Medical Care	-	-	X
Fishing Safety	X	X	X
Advanced Fire-fighting	-	X	X
Short /Long Range Certificate	X	X	X
Generic ECDIS <sup>8</sup>	X	X	X

<sup>7</sup> These proposed changes/amendments to be discussed at the 23<sup>rd</sup> syllabus committee meeting.

<sup>8</sup> Generic ECDIS certificate only required on or after 01 January 2018

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## Part 6 – Engine Fishing Vessels requirements

The table below groups certificates available for chief engineer officer (fishing), with the primary qualifications listed in the table. The different CoC's are incorporated are

1. Chief Engineer Officer (<3000 kW fishing)
2. Chief Engineer Officer (fishing)

	Second Engineer (Fishing)	Chief Engineer Officer (Fishing)
<b>Academic requirements</b>	<b>Required Modules</b>	
<i>Applied Marine Science and Mathematics</i>	1 to 2	1 to 2
<i>Electrotechnology</i>	1	1
<i>Emergency Procedures</i>	1 to 2	1 to 2
<i>Engineering Drawing</i>	1	1
<i>Engineering Knowledge</i>	1	1
<i>Fishing Safety</i>	1to 2	1to 2
<i>General Engineering Science / Applied Mechanics</i>	1 to 2	1 to 2
<i>Heat Engines / Thermodynamics</i>	1 & 3	1 & 3
<i>Naval Architecture</i>	1 to 8 & 11	1 to 8 & 11
<i>Personnel Management and Ship Master's Business</i>	1 to 4	1 to 4
Proficiency in Survival Craft and Rescue Boats	X	X
<b>Basic Training</b>		
<i>Personal Survival Techniques</i>	X	X
<i>Personal Survival and Social Responsibilities</i>	X	X
<i>Medical First Aid</i>	X	X
<i>Fire Prevention and fighting</i>	X	X
Advanced Fire-fighting	X	X

## Part 7 – Radio Certificates of Competency

	GMDSS General Operator's Certificate	Long Range Certificate	Short Range Certificate
Course Completion Certificate <sup>9</sup>	X	X	X
<b>Basic Training</b>			
<i>Medical First Aid</i>	X	-	-
<i>Personal Survival Techniques</i>	X	-	-
<i>Personal Safety and Social Responsibility</i>	X	-	-
<i>Fire prevention &amp; fire fighting</i>	X	-	-



## Part 8 – Deck Port Operations requirements

The table below group's certificates available for Port Operations. The Master (<1600 GT – Port Operations) is included under the Master (Port Operations) requirements

	<b>Skipper (Port Operations)</b>	<b>Master (Port Operations)</b>
Academic requirements	<b>Required Modules</b>	
<i>Chartwork</i>	1	1
<i>Electronic Navigation Systems</i>	1	1 to 2
<i>Naval Architecture</i>	1	1 to 5 & 8
<i>Personnel Management &amp; Ship Master's Business</i>	1 to 2	1 to 4 & 6
<i>Ship Manoeuvring &amp; Handling</i>	1	1 to 2
<i>Emergency Procedures</i>	1	1 to 2
<i>Communications</i>	-	-
<b>Basic Training</b>		
<i>Personal Survival Techniques</i>	X	X
<i>Personal Safety and Social Responsibility</i>	X	X
<i>Medical First Aid</i>	X	X
<i>Fire prevention &amp; Fire Fighting</i>	X	X
Advanced Fire fighting	-	X
Short Range Certificate (SRC)	X	X

## Part 9 – Engine Port Operations requirements

The table below group's certificates available for Port Operations. The Chief Engineer (<750 kW Port Operations) is included under the Chief Engineer (<1500 kW Port Operations) requirements

	Chief Engineer (<1500 kW Port Operations)	Chief Engineer (Port Operations)
<b>Academic Requirements</b>	<b>Required Modules</b>	
<i>General Engineering Science / Applied Mechanics</i>	1	1 to 2
<i>Heat engines / Thermodynamics</i>	1	1 to 3
<i>Engineering Drawing</i>	1	1
<i>Applied Science</i>	1	1
<i>Electrotechnology</i>	1	1
<i>Naval Architecture</i>	1 to 6	1 to 8, 11 & 12
<i>Personnel Management &amp; Ship Masters Business</i>	1 to 4	1 to 4 & 6
<i>Engineering Knowledge</i>	1	1 to 2
<b>Basic Training</b>		
<i>Personal Survival Techniques</i>	X	X
<i>Personal Safety and Social Responsibility</i>	X	X
<i>Medical First Aid</i>	X	X
<i>Fire prevention &amp; firefighting</i>	X	X
Advanced Fire fighting	-	X

## Part 10 – Certificates of Proficiency (Deck Ratings)

	Ordinary Seafarer deck	Able seafarer deck	Able seafarer deck (Port Operations)	Able Seafarer deck (fishing)	GPR (Port Operations)	Efficient Cook
Able seafarer deck	-	X	X	X	X	-
Able seafarer engine	-	-	-	-	X	-
Efficient Cook	-	-	-	-	-	X
<b>Basic Training</b>						
<i>Medical First Aid</i>	X	X	X	X	X	X
<i>Personal Survival Techniques</i>	X	X	X	X	X	X
<i>Personal Safety and Social Responsibility</i>	X	X	X	-	X	X
<i>Fire prevention &amp; fire fighting</i>	X	X	X	X	X	X
Ordinary Seafarer Deck	-	X	X	X	X	-
Survival Craft & Rescue Boats	-	X	-	-	-	-
Designated security duties	-	X	-	-	-	-

## Part 11 – Certificates of Proficiency (Engine Ratings)

	Ordinary Seafarer Engine	Able seafarer engine	Able seafarer engine (port Operations)	Electro-Technical Rating
Able seafarer engine	-	X	X	-
Electro technical rating	-	-	-	X <sup>10</sup>
<b>Basic Training</b>				
<i>Medical First Aid</i>	X	X	X	X
<i>Personal Survival Techniques</i>	X	X	X	X
<i>Personal Safety and Social Responsibility</i>	X	X	X	X
<i>Fire prevention &amp; fire fighting</i>	X	X	X	X
Ordinary Seafarer Engine	-	X	X	-
Survival Craft & Rescue Boats	-	X	-	-
Designated security duties	-	X	-	-

<sup>10</sup> To have completed at least N4 in electrical engineering or equivalent university qualifications, and workshop skills training.

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