1. Course Title: Engine Resource Management and Leadership & Teamwork (Operation Level)

2. Scope With reference to convention Imo Model Course:

This course is designed to equip individual with skills, knowledge and attitudes required to -

- Define what is Resource Management
- Explain why do weed Resource Management
- Factors that affect the performance of seafarer
- Attitude and management skills
- Cultural Diversity and Awareness
- Definition of Short term strategy and how to apply it
- Different Management Style
- Managing Workloads, Delegation and Human Involvement in Errors
- Judgment and Decision Making
- Automation Awareness
- Crisis Management
- Managing the crew
- Crisis Phase

in accordance with maritime industry standards.

3. Objective:

After completing the course, the candidates should be able to acquire the knowledge, skills and attitude for the safe cargo operation, precautions to prevent hazards, prevention of pollution, firefighting operations, emergencies, fundamental understanding of engine room resource management and to successfully participate in leadership and team exercises, thereby displaying knowledge of leadership, managerial skills, and team working skills

4. Course Outline Shore base & On board Training:

Sl No	**Knowledge, understanding and proficiency**	Hours
1.	Introduction	0.75
2.	Engine-room resource management	1.5
3.	Maintaining a safe engineering watch	1.5
4.	Use English in written and oral form	0.75
5.	Use internal communication systems	0.75
6.	Application of leadership and team working skills	0.75
7.	Knowledge and ability to apply effective resource management	0.75
8.	Knowledge and ability to apply decision-making techniques:	0.75
9.	Cultural Awareness	
10.	Workload and stress	0.75
11.	Human Factor in Error	0.75
12.	Practical	0.75
13.	Assessment	0.75
14.	Introduction	0.75
15.	Working knowledge of shipboard personnel management and training	3.0
16.	Need for international maritime conventions, recommendations and national legislation	0.75
17.	Ability to apply task and workload management	2.25
18.	Knowledge and ability to apply effective resource management	1.5
19.	Knowledge and ability to apply decision-making techniques	2.25
20.	Conclusion	0.75
21.	Assessment	0.75
	Total	**22.5**

5. Competence Standard/Course Syllabus Checked with up-to-date STCW/IMO Model Course:

Sl No	Knowledge, understanding and proficiency	Hours
1	**Introduction**	0.75
2	**Engine-room resource management:**	1.5
	2.1 Allocation, assignment, and prioritization of resources	
	2.2 Effective communication	
	2.3 Assertiveness and leadership	
	2.4 Obtaining and maintaining situational awareness	
	2.5 Consideration of team experience	
3	**Maintaining a safe engineering watch:**	1.5
	3.1 Thorough knowledge of Principles to be observed in keeping an engineering watch, including: duties associated with taking over and accepting a watch, routine duties undertaken during a watch, maintenance of the machinery space logs and the significance of the readings taken, duties associated with handing over a watch	
	3.2 Safety and emergency procedures; change-over of remote/automatic to local control of all systems	
	3.3 Safety precautions to be observed during a watch and immediate actions to be taken in the event of fire or accident, with particular reference to oil systems	
4	**Use English in written and oral form**	0.75
	4.1 Adequate knowledge of the English language to enable the officer to use engineering publications and to perform engineering duties	
5	**Use internal communication systems**	
	5.2 Operation of all internal communication systems on board	
6	**Application of leadership and team working skills**	1.5
	6.1 Working knowledge of shipboard personnel management training	
	6.2 A knowledge of related international maritime conventions and recommendations, and national legislation	
	6.3 Ability to apply task and workload management including: planning and coordination, personnel assignment, time and resource constraints, prioritization	
7	**Knowledge and ability to apply effective resource management:**	1.5
	7.1 allocation, assignment, and prioritization of resources	
	7.2 effective communication on board and ashore	
	7.3 decisions reflect consideration of team experiences	
	7.4 assertiveness and leadership, including motivation	
	7.5 obtaining and maintaining situational awareness	
8	**Knowledge and ability to apply decision-making techniques:**	1.5
	8.1 situation and risk assessment	
	8.2 identify and consider generated options	
	8.3 selecting course of action	
	8.4 evaluation of outcome effectiveness	
9	**Cultural Awareness**	0.75
	9.1 be sensitive to cultural differences and similarities	
	9.2 be aware of methods for dealing with cultural differences	
10	**Workload and stress**	
	10.1 demonstrate that the master shall set priorities to escape from an overload situation	

	10.2 demonstrate that the bridge team members shall maintain workload at a reasonable level of activity avoiding a false feeling of confidence and habitual thing	
	10.3 demonstrate that the pilot shall support the bridge team in maintaining a reasonable workload	
11	**Human Factor in Error**	0.75
	11.1 demonstrate that the master shall:	
	11.2 take the initiative to apply bridge Resource Management throughout each Voyage	
	11.3 establish specific preventive measures to guard against external and internal errors	
	11.4 establish an open climate for debriefing and learning from errors	
	11.5 demonstrate that the bridge team members, including the pilot, shall support the master in all aspects above	
12	**Practical**	0.75
13	**Introduction(Leadership & Teamwork)**	0.75
	13.1 Course overview 13.2 Describe the topics and emphasis of the course 13.3 Administration	
14	**Working knowledge of shipboard personnel management and training**	3.00
	14.1 organization of crew, authority structure, responsibilities 14.2 cultural awareness, inherent traits, attitudes, behaviour, cross-cultural communication 14.3 shipboard situation, informal social structures on board 14.4 human error, situation awareness, automation awareness, complacency, boredom 14.5 leadership and team working 14.6 training, structured shipboard training programs 14.7 knowledge of personal abilities and behavioural characteristics	
15	**Need for international maritime conventions, recommendations and national legislation**	0.75
	15.1 international maritime conventions – SOLAS, MARPOL, STCW, MLC,– role of IMO, ILO 15.2 Recommendations and national legislation	
16	**Ability to apply task and workload management**	2.25
	16.1 planning and coordination 16.2 personnel assignment 16.3 human limitations 16.4 personal abilities 16.5 time and resource constraints 16.6 prioritization 16.7 workloads, rest and fatigue 16.8 management (leadership) styles challenges and responses	
17	**Knowledge and ability to apply effective resource management**	1.5
	17.1 effective communication on board and ashore 17.2 allocation, assignment and prioritization of resources 17.3 decision making reflecting team experience 17.4 assertiveness and leadership, including motivation 17.5 obtaining and maintaining situational awareness	

	17.6 appraisal of work performance 17.7 short and long term strategies	
18	**Knowledge and ability to apply decision-making techniques**	2.25
	18.1 situation and risk assessment 18.2 identify and consider generated options 18.3 selecting course of action 18.4 evaluation of outcome effectiveness 18.5 decision making and problem solving techniques 18.6 authority and assertiveness 18.7 judgement 18.8 emergencies and crowd management	
19	**Conclusion**	0.75
	19.1 evaluation of course, individual assessments and advice	
	Assessment	0.75
	Total	**22.5**

6. Entry Standard, Selection Criteria of Students:

Training period is of 02 days, (16 Hours)

a. Theory - 12Hours

b. Practical - 04 Hours

7. Intake limitation, with specific mention Instructor-student ratio:

The number of trainees should not exceed 24 and the practical training should be undertaken in small groups of more than eight.

8. Qualification and experience of instructors:

Minimum qualification of any instructor or assessor must be Class- I Engine Officer with relevant certificate & knowledge.

9. Qualification and experience of assessors:

Minimum qualification of any instructor or assessor must be Class- I Deck/Engine Officers with tanker knowledge.

10. Details Facilities & Equipment, materials and resources available for the training; Visual aids lecture Notes, Library facilities, Rental documents, Workshops Training Equipment: Navigational, Engineering, Communication, Seamanship etc:

1. Projectors and slides
2. Multimedia and videos
3. Advanced audio visual systems
4. Tanker simulator
5. Dummy tanker ships, tank lid, manifold
6. Pump model Room
7. 02 nos Generator set
8. Synchronizing panel board
9. Well-equipped workshop with modern machineries
10. Engine model room
11. Bridge Simulator
12. Deck Model Room

11. Conduct of Training with number of classroom lectures, practical work use of simulator, video etc:

Period → Day ↓	0900-0945	0945-1030	1030-1115	1115-1145	1145-1230	1230-1315	1315-1400	1400-1500	1500-1545	1545-1630	1630-1715	1715-1800
1st Day	Introduction		Use English in written and oral form	Tea Break	Engine-room resource management			Launch Break	Workload and stress		Human Factor in Error	
2nd Day	Knowledge and ability to apply decision-making techniques		Use internal communication systems		Maintaining a safe engineering watch				Application of leadership and team working skills			Cultural Awareness
3rd Day	Knowledge and ability to apply effective resource management				Practical				Assessment			

12. Total duration of Training; Duration of Practical's:

Training period is of 02 days, (16 Hours)

a. Theory - 12Hours

b. Practical - 04 Hours

13. Assessment procedure, whether independent of instruction or continuous performance evaluation:

Course end assessment shall be carried out to ensure adequate knowledge, understanding & competence of the candidate.

A variety of source of evidence are used which include evidence of candidate's ability, under realistic condition. Short answers, multiple choice, fill in the blanks and true/false type questions in a written test are used for assessment includes direct observation, oral questioning and role play.

14. Formats of certificate to be issued with correct reference to STCW and reference to approval and authorization by the Department of Shipping and contact point of the issuing institution for verifying authenticity:

Annex- 02

No. NMIERM/

গণপ্রজাতন্ত্রীবাংলাদেশ সরকার
GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
ন্যাশনাল মেরিটাইমইন্সটিটিউট
NATIONAL MARITIME INSTITUTE
দক্ষিণহালিশহর, বন্দর, চট্টগ্রাম-৪১০০, বাংলাদেশ।
South Halishahar, P.O. Bandar, Chittagong-4100, Bangladesh.
Tel. 880-31-740569, Fax. No. 880-31-800620, E-mail: nmictebd@btcl.net.bd

PHOTO

ইঞ্জিন রুম রিসোর্স ম্যানেজমেন্ট সার্টিফিকেট
TRAINING FOR ENGINE ROOM RESOURCE MANAGEMENT CERTIFICATE

এই মর্মে প্রত্যয়নকরাযাইতেছে যে,
This is to certify that,
জনাব/ Mr. ..... পিতা / Son of Mr. ..... জন্ম তারিখ ও স্থান /
Date & Place of Birth ..... পদবী / Rank ..... সি.ডি.সি. নম্বর/C.D.C.No.
..... ইস্যুরতারিখ ও স্থান / Date & Place of Issue ..... ন্যাশনাল মেরিটাইমইন্সটিটিউট, চট্টগ্রাম,
বাংলাদেশে অনুষ্ঠিত ইঞ্জিন রুম রিসোর্স ম্যানেজমেন্ট সার্টিফিকেট কোর্সটি কৃতিত্বের সাথে সম্পন্নকরিয়াছেন।
has successfully completed basic safety training course on TRAINING FOR ENGINE ROOM RESOURCE MANAGEMENT CERTIFICATE conducted at the National Maritime Institute, Chittagong, Bangladesh.

হইতে/ from ..... পর্যন্ত/ to .....

এই কোর্সটিআন্তর্জাতিক এসটিসিডব্লিউ-১৯৭৮ কনভেনশন ও ইহারসংশোধিতবিধানেরবিধি- I/12ও এসটিসিডব্লিউ কোডের সেকশন A-III/1 & 2 and A & B-VIII/2অনুযায়ীঅনুষ্ঠিতহয়এবংইহাতেবাংলাদেশ সরকারেরনৌ পরিবহনঅধিদপ্তরেরঅনুমোদনরহিয়াছে।

The course is in conformity with International Convention on Standards of Training, Certification & Watch keeping for Seafarers, 1978 as amended, Regulation I/12, Sections A-III/1 & 2 and A & B-VIII/2of the STCW codeand has the approval of the Department of Shipping, Government of the People's Republic of Bangladesh.

ইস্যুরতারিখ / Date of Issue .....

মেয়াদ উত্তীর্ণেরতারিখ/ Date of Expiry .....

....
ধারকারস্বাক্ষর /Signature of the holder অধ্যক্ষ/Principal

15. Maintenance of records in Data-base for facilitation of checking including assessments:

NMI will maintain a data-base of all the students who have completed the course. The following records for each individual will be kept so as to ensure that the certificate is issued to a candidate who has met the requirements as laid down by the governing authority regarding issuance of a certificate on Bridge Resource Management.

- Application form
- Assessment papers after completion of course
- Attendance Sheet
- Attested Xerox copy of the issued certificates & licenses
- A registered data-base in hard copy and soft form

16. Internal Quality Standard System if any. Students Impressions, past results:

The institute maintains quality standard system ISO 9001:2008, Certified by DNV GL

17. Course notice served, course conducted as per course notice, progression report served:

Will be complied as per DOS Instruction.

18. Attendance of Students and Instructors:

Students and Instructor attendance sheet attached.

Annex- 03

NATIONAL MARITIME INSTITUTE

TRAINING RECORD

Instructor:

Venue:

Subject:

Brief description on training material

Attendance:

Name & rank	Sign	Name & rank	Sign	Name & rank	Sign

Signature
Management Representative

Signature
Principal