1. Course Title: Engine Resource Management

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	1.5
2.	Engine-room resource management	2.25
3.	Maintaining a safe engineering watch	2.25
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	2.25
7.	Knowledge and ability to apply effective resource management	2.25
8.	Knowledge and ability to apply decision-making techniques:	1.5
9.	Cultural Awareness	0.75
10.	Workload and stress	1.5
11.	Human Factor in Error	1.5
12.	Practical	2.25
13.	Assessment	1.5
	Total	**21**

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

1. Introduction

2. Engineering Organization and Procedures

3. Team Building

4. Situational Awareness and Error Trapping
5. Communication
6. Stress
7. Fatigue
8. Leadership and Decision Making
9. Cultural Diversity

Engine-room resource management:

- Allocation, assignment, and prioritization of resources
- Effective communication
- Assertiveness and leadership
- Obtaining and maintaining situational awareness
- Consideration of team experience

Maintaining a safe engineering watch:

- Thorough knowledge of Principles to be observed in keeping an engineering watch, including:
    1. duties associated with taking over and accepting a watch
    2. routine duties undertaken during a watch
    3. maintenance of the machinery space logs and the significance of the readings taken
    4. duties associated with handing over a watch

- Safety and emergency procedures; change-over of remote/automatic to local control of all systems
- 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

Use English in written and oral form

- Adequate knowledge of the English language to enable the officer to use engineering publications and to perform engineering duties

Use internal communication systems

- Operation of all internal communication systems on board

Application of leadership and teamworking skills

- Working knowledge of shipboard personnel management training
- A knowledge of related international maritime conventions and recommendations, and national legislation
- Ability to apply task and workload management including:

1.
    1.
        1. planning and coordination
        2. personnel assignment
        3. time and resource constraints
        4. prioritization

- **Knowledge and ability to apply effective resource management:**

1.
    1.
        1. allocation, assignment, and prioritization of resources
        2. effective communication on board and ashore
        3. decisions reflect consideration of team experiences
        4. assertiveness and leadership, including motivation
        5. obtaining and maintaining situational awareness

- **Knowledge and ability to apply decision-making techniques:**

1.
    1.
        1. situation and risk assessment
        2. identify and consider generated options
        3. selecting course of action
        4. evaluation of outcome effectiveness

6. Entry Standard, Selection Criteria of Students:

Trainees or students wishing to gain entry into this course should possess the following requirements:

- **Age:** be not less than 18 years of age.
- **Education & Training:** must have valid seafaring documents.

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 not 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 Engine Officer with relevant certificate & 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:

- Projectors and slides
- Multimedia and videos
- Advanced audio visual systems
- Tanker simulator
- Dummy tanker ships, tank lid, manifold
- Pump model Room
- 02 nos Generator set
- Synchronizing panel board
- Well-equipped workshop with modern machineries
- Engine model room

- Bridge Simulator
- 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 03 days, (21 Hours)

a. Theory – 17.25 Hours
b. Practical – 2.25 Hours
c. Assessment- 1.5 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:

Cert No: 2016.02.066.0000758 DoS Reg. No: 2016.02.066.0019859

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

ন্যাশনাল মেরিটাইম ইন্সটিটিউট

NATIONAL MARITIME INSTITUTE

South Halishahar, P.O. Bandar, Chittagong-4100, Bangladesh.
Phone : +88-031-740569, Fax : +88-031-800620, E-mail : info@nmi.gov.bd

Course Completion Certificate

ENGINE ROOM RESOURCE MANAGEMENT AND APPLICATION OF LEADERSHIP AND MANAGERIAL SKILLS

This is to certify that, Mr. MD. NASHIR UDDIN Son of Mr. LATE OMAR ALI BISWAS, Date & Place of Birth 19-10-1969 & CHUADANGA, C.D.C.No. C/O/2453 has successfully completed course on **ENGINE ROOM RESOURCE MANAGEMENT AND APPLICATION OF LEADERSHIP AND MANAGERIAL SKILLS** conducted from **20-11-2016** to **27-11-2016** at the National Maritime Institute, Chittagong, Bangladesh

Issue Date: 28-11-2016 and Expiry Date 28-11-2021

Has been duly qualified and satisfied the condition in accordance with the provisions of Regulation A-111/2 of Annex to the international convention on standards of training, certification and watch keeping for seafarers(STCW),1978 as amended.

CERTIFIED TRAINING INSTITUTE

Signature of the Holder

Principal

to verify this certificate visit- **www.nmi.gov.bd**

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.

NATIONAL MARITIME INSTITUTE

TRAINING RECORD

Instructor: SYED ROWSHON ANSAR

Batch No: 01

Subject: ENGINE ROOM RESOURSE MANAGEMENT & APPLICATION OF LEADERSHIP AND TEAM WORKING SKILLS

Course Duration: 13-09-2016 to 24-09-2016

Attendance:

Name & rank:	Sign		Name & rank:	Sign
MOHAMMED SHAFIQUR RAHMAN				
MOHAMMED MONIRUZZAMAN				
MD. IMAMUDDIN				
H.M. GOLAM MORTOZA				
SYED AMINUL HOSSAIN				
MOHAMMED MOHI UDDIN				
MD. SHAHADAT HOSSAIN				
MOHAMMED ABU TAHER				
MD. RAFIQUL ISLAM				
MOSTAFA ANWAR				

Signature
Management Representative

Signature
Principal