

## Programmes & Curriculum

### A- PRE – SEA COURSES

1. The following Pre-sea Courses are conducted at the Pakistan Marine Academy, Karachi:

- a. **Two Years Cadetship Course(Nautical/Marine Engineering)**  
leading to award of Associate degree in Ship Management/Marine Engineering in affiliation with NED University of Engineering & Technology, Karachi
- b. **Five month GP-III Training for Ratings**

### B- POST-SEA/SHORT MANDATORY COURSES

SR.NO	COURSE NAME
01	Navigational Control Course (Management Level)
02	Navigation Control Course (Operational Level)
03	Radar Simulator Course
04	Automatic Radar Plotting Aids Course
05	Oil Tanker Familiarization Course
06	Engine Plant Simulator (Basic Course)
07	Engine Plant Simulator (Advance Course)
08	Basic Fire-Fighting Course
09	Advance Fire-Fighting Course
10	Personal Survival Techniques Courses
11	Elementary First Aid Course
12	Medical First Aid Course
13	Proficiency in Survival Craft & Rescue Board (Regular Course)
14	Proficiency in Survival Craft & Rescue Board (Up-dating Course)
15	Personal Safety & Social Responsibility

## Summary of the above courses is as follows:

### a- Two Years Cadetship Course

*Leading to award of*

### Associate degree in (Ship Management/Marine Engineering) by NED University of Engineering & Technology, Karachi

2. This Course begins each year in the first week of January. Admission is offered in the following two disciplines/branches:

- Nautical Branch(Ship Management)
- Marine Engineering Branch

### 3. Eligibility Criteria for admission:

- i) **Qualification:** HSC(Pre-Engineering) OR HSC with Physics, Mathematics & Computer Science or Equivalent. Candidates not having Chemistry at HSC level will be considered only for Nautical Branch
- ii) **Age:** Not more than 20 years on 31st December of the year in which applying (relaxable by one year for those belonging to FATA/FANA and Azad Kashmir)
- iii) **Entry Test: Candidates must pass**
- iv) **Medical Fitness.** Medical examination will be conducted in Military Hospitals designated by the Academy. In addition, the applicants shall be required to pass the "Visual and Colour Perception Test", from the Mercantile Marine Department(MMD), Karachi, after final selection. Failures in this test will not be eligible for admission in PMA.

4. The two - years' Course is divided into four Semesters, each of about five months duration, allowing about six weeks vacation during June and July every year, and about two weeks in December/January.

5. The Cadets may, upon their choice and subject to availability of seats, opt for Ship Management(Nautical) Branch or the Marine Engineering Branch.

- i) The two years training in ship management will qualify them to serve as **Deck Officers** on board the merchant ships.
- ii) While the two years training in marine engineering will enable them to be employed as **Marine Engineers** on board merchant ships. Marine Engineering cadets are, however, required to undergo one year

apprenticeship training at an appropriate Marine Engineering Workshop after passing out of the Academy and before joining a ship.

6. As a matter of policy, Academy accepts foreign cadets only if they are sponsored by their respective Governments.

7. Cadets are required to be resident at the Academy while they attend the two-year course. Cadets are also expected to strictly adhere to the discipline of the Academy. The Commandant reserves the right to withdraw any cadet on disciplinary grounds or to award any retribution for infringement of the rules.

## **SUBJECTS**

The following subjects are taught to the Cadets during their two years' study:

### **I. SHIP MANAGEMENT DISCIPLINE**

#### ACADEMICS

1. English
2. Mathematics
3. Physics
4. Pak Studies
5. Islamic Studies
6. International Maritime Law

#### AA - NAVIGATION

1. Principles of Navigation.
2. Ocean and Off – Shore Navigation.
3. Electronic Navigation System.
4. Radar Navigation.
5. Coastal Navigation.

#### BB – MARINE OPERATIONS

1. Seamanship, Theory and Practice.
2. Marine Communications, Theory and Practice.
3. Watch keeping.

#### CC – MARINE TRANSPORTATION

1. Ship Stability.
2. Ship Construction.
3. Cargo Handling and Stowage.

#### DD – MARINE METEOROLOGY.

### **II. MARINE ENGINEERING DISCIPLINE**

#### ACADEMICS

1. English
2. Mathematics
3. Physics
4. Pak Studies
5. Islamic Studies
6. International Maritime Law

#### AA – PROFESSIONAL ENGINEERING KNOWLEDGE

1. Internal Combustion Engines.
2. General Engineering Knowledge.
3. Workshop, Theory and Practice.

#### BB – ENGINEERING SCIENCES

1. Applied Mechanics
2. Thermodynamics.
3. Electro – Technology, Instrumentation and Control Systems.
4. Naval Architecture and Ship Construction.

#### CC – MACHINE DRAWING.

### b- Five month GP-III Training for Ratings