

Programmes & Courses

A- PRE – SEA COURSES

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

- a. **Two Years' Cadetship Programme (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 months General Purpose Crew(GP-III) Course/Training for Ratings**

B- POST-SEA/SHORT MANDATORY COURSES

The Academy also conducts the following Short/Mandatory/IMO Modular Courses for sea-farers:

SR.NO	COURSE NAME
01	Oil Tanker Familiarization Course
02	Engine Plant Simulator (Basic Course)
03	Engine Plant Simulator (Advance Course)
04	Basic Fire-Fighting Course
05	Advance Fire-Fighting Course
06	Personal Survival Techniques Courses
07	Elementary First Aid Course
08	Medical First Aid Course
09	Proficiency in Survival Craft & Rescue Boat (Regular Course)
10	Proficiency in Survival Craft & Rescue Boat (Up-dating Course)
11	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 Equivalent with Physics, Mathematics & Chemistry.
- ii) **Age:** Not more than 20 years on 31st December of the year when the applications are invited (relaxable by one year for those belonging to FATA/Gilgit Baltistan and Azad Kashmir)
- iii) **Entry Test:** Candidates must pass the Entry Test as prescribed by the Academy.
- iv) **Medical Fitness.** Medical examination is 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 in 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, apply/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(PNSC/KPT, the Academy will make arrangements through the Ports & Shipping Wing) 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.

SCHEME OF STUDIES
for
ASSOCIATE DEGREE PROGRAMME IN SHIP MANAGEMENT

1st Year

Semester-I

Course Code	Course Title	Cr Hrs
	Academic	
ED-101	English-I	3
ED-102	Pakistan Studies	1
ED-103	Physics(Theory)-I	3
ED-105	Physics(Practical)-I	1
ED-104	Mathematics-I	3
	Professional	
NS-151	Principles of Navigation-I	2
NS-152	Ocean & Offshore Navigation-I	2
NS-153	Seamanship(Theory & Practical)-I	4
NS-154	Marine Communication-I	2
NS-155	General Ship Knowledge-I	3
NS-156	Marine Meteorology-I	2
GT-161	Computer Familiarization-I	1
	Total	27
	Non Credit Courses	
GT-162	Officer Like Qualities-I	2

Semester-II

Course Code	Course Title	Cr Hrs
	Academic	
ED-201	English-II	3
ED-202	Islamic Studies	1
ED-203	Physics(Theory)-II	3
ED-205	Physics(Practical)-II	1
ED-204	Mathematics-II	3
	Professional	
NS-251	Principles of Navigation-II	2
NS-252	Ocean & Offshore Navigation-II	2
NS-253	Seamanship(Theory & Practical)-II	4
NS-254	Marine Communication-II	2
NS-255	General Ship Knowledge-II	3
NS-256	Marine Meteorology-II	2
GT-261	Computer Familiarization-II	1
	Total	27
	Non Credit	
GT-262	Officer Like Qualities-II	

2nd Year

Semester-III

Course Code	Course Title	Cr Hrs
	Academic	
ED-301	English-III	3
ED-302	Personal & Organizational Management	1
ED-303	Chemistry(Theory)-I	3
ED-305	Chemistry(Practical)-I	1
ED-304	Mathematics-III	3
	Professional	
NS-351	Principles of Navigation-III	2
NS-352	Ocean & Offshore Navigation-III	2
NS-353	Seamanship (Theory)-III	2
NS-354	Coastal Navigation-I	3
NS-355	General Ship Knowledge-III	3
NS-356	Watchkeeping-I	1
NS-357	Radar Navigation-I	2
NS-358	Electronic Navigation-I	2
GT-361	Computer Familiarization-III	1
	Non Credit/Mandatory Courses	29
GT-362	Officer Like Qualities-III	2
MC-391	Personal Safety & Social Responsibility	1
MC-392	Elementary First Aid	1
MC-393	Tanker Familiarization	1

Semester-IV

Course Code	Course Title	Cr Hrs
	Academic	
ED-401	English-IV	3
ED-402	International & Legal Maritime Studies	1
ED-403	Chemistry(Theory)-II	3
ED-405	Chemistry(Practical)-II	1
ED-404	Mathematics-IV	3
	Professional	
NS-451	Principles of Navigation-IV	2
NS-452	Ocean & Offshore Navigation-IV	2
NS-453	Seamanship (Theory)-IV	2
NS-454	Coastal Navigation-II	3
NS-455	General Ship Knowledge-IV	3
NS-456	WatchKeeping-II	1
NS-457	Radar Navigation-II	2
NS-458	Electronic Navigation-II	2
GT-461	Computer Familiarization-IV	1

	Total	29
	Non Credit/Mandatory Courses	
GT-462	Officer Like Qualities-IV	2
MC-491	Personal Survival Techniques	1
MC-492	Basic Fire Fighting	1

SUMMARY OF THE ASSOCIATE DEGREE PROGRAMME

- Total number of Credit Hours 112
- Duration of the Associate Degree 2 years
- Semester Duration 20 weeks
- Semesters 4
- Course Load per Semester 27-29 Cr Hrs
- Average number of Courses per Semester 14 Courses/Semester

SCHEME OF STUDIES

for

ASSOCIATE DEGREE PROGRAMME IN MARINE ENGINEERING

1st Year

Semester-I

Course Code	Course Title	Cr Hrs
	Academic	
ED-101	English-I	3
ED-102	Pakistan Studies	1
ED-103	Physics(Theory)-I	3
ED-105	Physics(Practical)-I	1
ED-104	Mathematics-I	3
	Professional	
EG-151	General Engineering Knowledge-I	2
EG-152	Workshop(Theory & Practice)-I	4
EG-153	Applied Mechanics-I	1
EG-154	Applied Thermodynamics-I	1
EG-155	Electro Technology-I	2
EG-156	Machine Drawing-I	3
EG-157	Internal Combustion Engines-I	1
EG-158	Naval Architecture & Ship Construction-I	1
GT-161	Computer Familiarization-I	1
	Total	27

	Non Credit Courses	
GT-162	Officer Like Qualities-I	2

Semester-II

Course Code	Course Title	Cr Hrs
	Academic	
ED-201	English-II	3
ED-202	Islamic Studies	1
ED-203	Physics(Theory)-II	3
ED-205	Physics(Practical)-II	1
ED-204	Mathematics-II	3
	Professional	
EG-251	General Engineering Knowledge-II	2
EG-252	Workshop(Theory & Practice)-II	4
EG-253	Applied Mechanics-II	1
EG-254	Applied Thermodynamics-II	1
EG-255	Electro Technology-II	2
EG-256	Machine Drawing-II	3
EG-257	Internal Combustion Engines-II	1
EG-258	Naval Architecture & Ship Construction-II	1
GT-261	Computer Familiarization-II	1
	Total	27
	Non Credit Courses	
GT-262	Officer Like Qualities-II	2

2nd Year

Semester-III

Course Code	Course Title	Cr Hrs
	Academic	
ED-301	English-III	3
ED-302	Personal & Organizational Management	1
ED-303	Chemistry(Theory)-I	3
ED-305	Chemistry(Practical)-I	1
ED-304	Mathematics-III	3
	Professional	
EG-351	General Engineering Knowledge-III	2
EG-352	Workshop(Theory & Practice)-III	4
EG-353	Applied Mechanics-III	2
EG-354	Applied Thermodynamics-III	2
EG-355	Electro Technology, Instrumentation Control System-III	2
EG-356	Machine Drawing-III	3
EG-357	Internal Combustion Engines-III	1

EG-358	Naval Architecture & Ship Construction-III	1
GT-361	Computer Familiarization-III	1
	Total	29
	Non Credit/Mandatory Courses	
GT-362	Officer Like Qualities-III	2
MC-391	Personal Safety & Social Responsibility	1
MC-392	Elementary First Aid	1
MC-393	Tanker Familiarization	1

Semester-IV

Course Code	Course Title	Cr Hrs
	Academic	
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ED-402	International & Legal Maritime Studies	1
ED-403	Chemistry(Theory)-II	3
ED-405	Chemistry(Practical)-II	1
ED-404	Mathematics-IV	3
	Professional	
EG-451	General Engineering Knowledge-IV	2
EG-452	Workshop(Theory & Practice)-IV	4
EG-453	Applied Mechanics-IV	2
EG-454	Applied Thermodynamics-IV	2
EG-455	Electro Technology, Instrumentation Control System-IV	2
EG-456	Machine Drawing-IV	3
EG-457	Internal Combustion Engines-IV	1
EG-458	Naval Architecture & Ship Construction-IV	1
GT-461	Computer Familiarization-IV	1
	Total	29
	Non Credit/Mandatory Courses	
GT-462	Officer Like Qualities-IV	2
MC-491	Personal Survival Techniques	1
MC-492	Basic Fire Fighting	1

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- Duration of the Associate Degree 2 years
- Semester Duration 20 weeks
- Semesters 4
- Course Load per Semester 27-29 Cr Hrs

- Average number of Courses per Semester 14 Courses/Semester

b- Five months General Purpose Crew(GP-III)Training for Ratings

The pre – sea training for GP III ratings is conducted at the Seamen Training Wing, a subordinate organization of Pakistan Marine Academy, located within the Academy Campus. This Course is of five months duration and conducted twice each year, commencing in January and July.

To be eligible for admission to the GP-III training, an applicant must fulfill the following conditions:

1. He must have completed ten years studies at the school and must have passed Secondary School Certificate or equivalent examinations.
2. He must be within 18 to 25 years of age on the date of commencement of the Course.
3. He must be medically fit. The medical examination is conducted at military hospitals designated by the Academy.