



Graduate Marine Engineers (GME)

If you have done 4 year B.Tech degree in Mechanical Engineering or in Naval Architecture from any AICTE approved institute and you are willing to make a career in **Merchant Navy** as an Engineer, this article will guide you step by step.

After completion of your B.Tech or B.E. degree in Mechanical Engineering you have to do **1 year Pre – Sea training** to join Merchant Navy as an Engineer. This training is called Graduate Marine Engineers (GME) Course.

After completion of GME course, you will be employed by worldwide shipping companies as Junior Engineer or **Trainee Marine Engineer**.

Visit www.marinerepublic.in for more information

Graduation in Marine Engineering (GME) : Eligibility

The minimum criteria of eligibility for this course are divided between two main requirements- educational and medical.

Educational Qualifications:

B.E./ B.Tech degree in ***Mechanical or Naval Architecture*** with minimum 50% in final year and with minimum *50% in English Language at 10th or 12th or in Degree Exam.*

Medical/ Physical Standards

Max. age : 28 Yrs.

Candidates aspiring for the course need to be physically fit and capable of taking up seafaring roles. Candidates should not be suffering from colour or night blindness.

Institutes for GME Course

Before choosing an Institute for GME course you must ensure if the institute is approved by Director General of Shipping. Check the [full list of GME institutes at](#)



www.dgshipping.gov.in along with their placement record. Always take admission in *top rated GME institutes* with good placement record.

GME Course Admission Process

You have to apply to these institutes directly. Shortlist the institutes of your choice based on their ranking and placement record and then contact those institutes. These institutes will conduct an entrance exam for selection. Every institute has their own separate Entrance Exam and their own selection criteria. Some colleges conduct only one batch in the month of **June**, whereas some conduct two batches every year in the month of **December and June**.

Government of India has made it MANDATORY to all the colleges to provide 100% sponsorship to its intake students. Therefore to get a good company & a good institute you must prepare well so that you can get sponsored by a reputed company.

GME Entrance Exam Syllabus

All the Colleges and Companies conduct written exam followed by the Interview for the selection of candidates. You must do targeted preparation in order to get selected in *Companies sponsorship* test and in *Top GME Colleges*.

Written Exam :

Written exam consists of 3 papers

1. General English
2. General Aptitude & Reasoning
3. Engineering

Topics for Engineering:

- Fluid Mechanics
 - Bernoulli's and Archimedes principle



- Pumps
- IC Engines,
 - Basic knowledge of 2 stroke and 4 stroke engine
 - Otto, Diesel and Dual cycle and comparison
 - What is the meaning of SI and CI engine?
 - Define INTERNAL COMBUSTION ENGINE.
 - Draw p-v curves and identify important phases of the stroke in it.
 - Exhaust gas Turbocharger
- Thermodynamics,
 - Basic gas laws,
 - Basic cycles, efficiency , different process (adiabatic, isothermal etc)
 - Heat transfer theory
 - Types of Boilers and Fittings
- Hydraulics,
- Pumps,
 - Operating theory and principle of different types of pumps
- Compressors,
 - Reciprocating Air Compressors Basics.
- Turbines,
- Work shop Technology,
- Heat Engines and Cycles,
- Refrigeration,
 - AC and Ref theory. Enthalpy diagrams, entropy charts, mollier charts etc.
- Basic Electricals
 - Basic theory of electricity , its laws and network theorems, electromagnetic theory
 - faradays laws of electrolysis
 - AC and DC circuits. How AC and DC is generated.
 - Basic knowledge of semiconductors.
 - Theory of operation of Induction motors



Interview:

Interview is the most crucial part of selection procedure. In some institutes “*psychometric Test*” is conducted along with Interview. During interview your personality and Leadership qualities are judged. Merchant Navy related questions are asked to check your awareness about shipping.

It is important to specially prepare for Interview and do targeted preparation for written exam, as it is directly related to your JOB. Once you crack it, your life and career is secured.

Course Duration :

GME Course duration is 1 year which is divided in 2 semesters. After completion of course institute will provide you CDC which is a document required to work on ships and is issued by Government of India.

Course Fees:

GME Course fees vary from Institute to institute. It will be in the range of 300,000 Rs. to 600,000 rupees.

Important Tips:

Just prepare from your Mechanical engineering. Give special attention to diesel engines, pumps, boilers. Actually brush up just the basics and maintenance part.