



# Indian Institute of Technology

## Course Details Report

**Course No: OE2014**

**Course Name: Marine Engineering**

**Course Type:**

Theory

**Description:**

- The students will gain the understanding of marine engineering
- To design a shipping machinery, they will be able to identify space and requirement of the machinery

**Course Content:**

Introduction to marine machinery -Types of marine power systems-Engine room layout -Marine diesel engines and their cycles, Fuels Super charging, Ignition and combustion problems-Fuel oil, lubricating oil-Compressed air cooling water systems.

Turbines, pumps, their types and characteristics, cavitation etc.

Marine boilers, Composite boilers-Exhaust gas and heat exchangers-Economizers, Super heaters.

Auxiliary machineries-Choice of power systems for ships.

Fire fighting, Navigational aids, Steering gear, shafting, stern tubes and transmission system

**Text Books:**

Harrington,R.L. Marine Engineering, SNAME,New York (1992)

2.Taylor,D.A.,Introduction to Marine Engineering,Butterworths,London(1983)

3. Woodward, J.B.,Low Speed Marine Diesel,Ocean Engineering,A Wiley series(1981)

**Reference Books:**

Any standard text books on thermodynamics and IC engines