



Indian Institute of Technology

Course Details Report

Course No: OE3046

Course Name: Ship Structural Design

Course Type:

Theory

Description:

Educate the students on ship framing systems, structural configurations, local structures, design structures of cargo handling systems, hatch covers, etc.

Course Content:

Review on Shipbuilding materials, joining techniques, structural design steps, basic approach and use of classification rules. Ship framing systems; Structural systems and components at bottom, side, deck, bulkheads, fore-end, aft-end, engine room and their design using classification rules. Design of superstructures, accommodation area, forecastle, hatch covers, chain locker, rudder, cargo handling systems, nozzle, etc. Practicals: 1. Structural design and drawing of mid-ship section, fore-peak, aft-peak, engine room, bulkhead, rudder 2. Shell expansion drawing

Text Books:

1. Taggart; Ship Design and Construction, SNAME, 1980.
2. Eyres D.J.; Ship Construction, William Heinemann Ltd, London, 2011.
3. Okumoto, Y. Design of Ship Hull Structures- A practical guide for Engineers, Springer –Verlag, 2009.

Reference Books:

1. Jensen, J.J, Load and Global Responses of Ships, Elsevier, 2001
2. Bai, Y. Marine Structural Design, Elsevier, 2003
3. Paik, J.K and Thayamballi, A.K., Ultimate Limit State Design of Steel-Plated Structures, John Wiley, 2003