

OE3190: DESIGN OF OCEAN STRUCTURES

Course Content:

Coastal Structures: Design principles of breakwater, seawall, groynes, berthing structures, quay walls and open sea jetty, breasting and mooring dolphins; Dry Docks, Slipways; Code Provisions : IS 4651, IS 2911 and BS 6349 Offshore Structures: Concepts and design principles of jacket and topside structures, Tension Leg Platforms, Spar Structures, Jackups and FPSO's; Concepts and design of foundation for offshore structures; Code Provisions : API RP 2A and API RP2T.

Text Books:

1. Coastal Hydraulics by **A.M.M. Wood and C.A. Fleming**, Macmillan Press Limited, 1981.
2. Coastal Engineering by **K. Horikawa**, University of Tokyo Press, 1978
3. Design and Construction of Port and Marine Structures by **A. D. Quinn**, McGraw-Hill Book Company
4. Port Design : Guidelines and recommendations by **C. A. Thoresen**, Tapir Publications
5. Design of Marine Facilities for the Berthing, Mooring and Repair of Vessels by **J. W. Gaythwaite**, VanNostrand;

Reference Books:

1. Handbook of Offshore Engineering by **S.K. Chakrabarti**, Elseviers, 2005

Prerequisite:

Core Course

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