

Course Number: 28989
Course Name: Dynamic of Marine Vehicle

Course Type: theory
Prerequisite:
Level: Masters and Ph.D.
Group: Marine engineering

Type & Max Unit: 3
Corequisite:
First Presentation:
Last Edition: 1396

Objectives:

Modeling and analyzing motions of vessels in waves

Topics:

- Hydrodynamic principles
- Equations and boundary conditions
- Linear waves
- Nonlinear waves
- Dynamic systems
- Encounter frequency
- Sea loads
- Motions of one degree of freedom system
- Methods of determining hydrodynamic coefficients
- Motions as six degrees of freedom motion
- Performance evaluation of vessels in wave

References:

- [1] Mohammad saeed,seif.Amin,najafi."Dynamic of Marine Vehicle".sharif university of technology.2013.
- [2] O. Faltinsen " Sea Loads on Ships and Offshore Structures". Cambridge University Press, Mehr 1, 1372 AP - Technology & Engineering - 328 pages
- [3] Rameswar Bhattacharyya." Dynamics of Marine Vehicles (Ocean Engineering)". ISBN 0471072060 (ISBN13: 9780471072065).Edition Language English. 1978.