COURSE INFORMATION AND OUTLINE

ORE 609 - HYDRODYNAMICS OF FLUID-BODY INTERACTION
(Tuesdays and Thursdays 1:30 - 2:45p.m., Holmes Hall 242)

INSTRUCTOR

Prof. R.C. Ertekin (Holmes Hall 401, Tel: 956-6818, E-mail: ertekin@hawaii.edu)

OFFICE HOURS

Tuesdays and Thursdays 12:30-1:30p.m. Also by appointment or phone or e-mail.

LECTURE NOTES

Will be handed out periodically.

RECOMMENDED BOOKS

- S.K. Chakrabarti (2002), *The Theory and Practice of Hydrodynamics and Vibration*, World Scientific, New Jersey
- J.N. Newman (1978), *Marine Hydrodynamics*, MIT Press, Cambridge, USA

GRADING

Homework	30%
Midterm Exam	35%
Final Exam	35%

RESERVE BOOKS IN THE ORE LIBRARY

- Sarpkaya and Isaacson: Mechanics of Wave Forces on Offshore Structures
- Newman: Marine Hydrodynamics
- Currie: Fundamental Mechanics of Fluids
- Ippen: Estuary and Coastline Hydrodynamics
- Mei: The Applied Dynamics of Ocean Surface Waves
- Abramowitz and Stegun: Handbook of Mathematical Functions
- Gradshteyn and Ryzhik: Table of Integrals, Series and Products
- Chakrabarti: Hydrodynamics of Offshore Structures
- Mase: Continuum Mechanics

ORE Student Learning Outcomes for ORE 609:

1) Understand the theoretical and experimental principles of fluid-body interaction problems in the oceans,

2) Understand the principles of viscous and ideal flow and be able to apply the pronciples to problem solving that involves rigid body movements in the oceans, and

3) Understand the diffraction, radiation and motions of floating and submerged bodies in deterministic and irregular waves.

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Name and E-Mail address	Undergraduate Major and ORE Minor (Coastal/Ocean Resources/Offshore)	List of ORE courses taken (past semester(s) and this semester).