

ENGINEERING 4020

MARINE FLUID DYNAMICS

INSTRUCTOR : MICHAEL HINCHEY

METHOD OF EVALUATION

HOMEWORK/LABS	10%
QUIZ #1 (JUNE 10)	15%
QUIZ #2 (JULY 15)	15%
FINAL EXAMINATION	60%

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MAJOR TOPICS

(1) DIMENSIONAL ANALYSIS; SCALING LAWS (2)  
HYDRAULICS; PNEUMATICS; FLUID TRANSIENTS (3)  
TURBULENT WAKE FLOWS; COMPUTATIONAL FLUID  
DYNAMICS (4) FLUID STRUCTURE INTERACTION (5)  
BOUNDARY LAYER FLOWS (6) CONSERVATION LAWS:  
MASS; MOMENTUM; ENERGY (7) APPLICATIONS: PIPE  
NETWORKS; MOMENTUM DEVICES