

UHM
University of Hawai'i at Manoa

**School of Ocean and Earth Science
and Technology**
**Department of Ocean and Resources
Engineering**



Course: ORE 609 - Hydrodynamics of Fluid-Body Interaction

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Specialization Project

Description

The purpose of the ORE 609 Term project will increase the students understanding of fundamental fluid mechanics and hydrodynamics utilizing the fundamental principles that have been developed in class. The project can be performed individually or as a group. If performed as a group, each student will be responsible for a report describing the findings of their project.

For the report, students should discuss fundamental topics covered in ORE 609 in regards to the project. For example, any fluid mechanics problem governing non-dimensional parameters. The reports should discuss the relevant non-dimensional parameters to the problem. Similarly, term papers can discuss how the Navier-Stokes equations are used if applicable, how potential flow is used if applicable, how boundary layer theory is used if applicable, etc. , but the discussion should include appropriate fundamental topics relevant to the chosen project. Students are encouraged to develop and discuss new ideas for possible future work related to the chosen project.

References

References should be used in the preparation of the report as it is likely that not all topics related to the project have been covered in class. Journal databases such as "Web of Science" and "Compendex" are recommended and available through the UH library if you have not performed a literature search before.

Deadlines

Refer to the syllabus.

Potential Projects

Numerical Methods | Experimental Methods

This is updated each semester based on students' interests.