

Course Syllabus

FUNDAMENTALS OF OCEANOGRAPHIC ENGINEERING

Printed by: lualtam

Program: Oceanographic Engineering

1. Course number and name

OCEG1035 - FUNDAMENTALS OF OCEANOGRAPHIC ENGINEERING

2. Credits and contact hours

3 credits and 3 contact hours

3. Instructor's course or coordinator's name

LUIS MIGUEL ALTAMIRANO PEREZ

4. Text book, title, author, and year

- Randall, Robert D.. Elements of ocean engineering ((alk. paper))

5. Specific course information

- a. Brief description of the content of the course (catalog description)

This course offers an overview of coastal and ports engineering, and its relationship with oceanography. The subjects taught in this course are related to areas such as: underwater acoustics, ports, and coastal engineering. Emphasis is placed on the role of these disciplines in the development of the country. The modality of the course comprises two parts: a theoretical one (units 1-2) and the design process application (design thinking) throughout the semester (unit 3).

- b. Prerequisites

PROBLEM SOLVING I - INDG1033

- c. This course is: Required

6. Specific goals for the course

- a. Specific outcomes of instruction

1.- Become familiar with oceanographic engineering professional activity environment in order to understand coastal and marine related problems that need to be solved.

2.- Develop the ability to work in multidisciplinary groups using design process techniques as guidelines.

3.- Conduct preliminary designs that solve real life problems in the marine-coastal zone related to oceanography, engineering and coastal resources management.

- b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course

- An ability to recognize the need to undertake, and the skills to become an entrepreneur.

7. Brief list of topics to be covered

1.- Underwater acoustics

2.- Coastal engineering and ports

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3.- The design thinking method