

## Course Syllabus

### SOIL AND ROCKS MECHANICS

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Program: Oceanographic Engineering

#### 1. Course number and name

CIVG1060 - SOIL AND ROCKS MECHANICS

#### 2. Credits and contact hours

3 credits and 5 contact hours

#### 3. Instructor's course or coordinator's name

DAVIDE BESENZON VENEGAS

#### 4. Text book, tittle, author, and year

- Atkinson J.. The Mechanics of Soils and Foundations (Segunda edición)
  - a. Other supplemental materials
- Lambe, T. William. Mecanica de suelos (Spanish Edition) (1era Edición)

#### 5. Specific course information

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

This intermediate level professional training course in Civil Engineering deals with the mechanical behavior of soils and rocks, to be used as construction material or as a support base for engineering works. It covers the study of sampling methods, physical and mechanical properties of soils and rocks, stress and deformation states of soil and rock masses and analytical methods of slope stability.

- b. Prerequisites

MARINE GEOLOGY- OCEG1036

- c. This course is: Required

#### 6. Specific goals for the course

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

#### 7. Brief list of topics to be covered

- 1.- Evaluation activities
- 2.- Index properties and classification of soils
- 3.- Soil Compaction
- 4.- Filtration and permeability
- 5.- Stress in a soil mass and compressibility
- 6.- Shear strength
- 7.- Mechanical behavior of rock masses and slope stabilities