

## Course Syllabus

### PHYSICS II

Printed by: jfmoncay

Program: Telecommunications Engineering

#### 1. Course number and name

FISG1002 - PHYSICS II

#### 2. Credits and contact hours

3 credits and 5 contact hours

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

EDUARDO EFRAIN MONTERO CARPIO

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

- YOUNG y FREEDMAN. FÍSICA UNIVERSITARIA VOL 1 13ª EDICIÓN (11)
  - a. Other supplemental materials
- YOUNG y FREEDMAN. FÍSICA UNIVERSITARIA VOL 2 (DÈCIMO TERCERA)

#### 5. Specific course information

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

Physics II is a theoretical-practical course addressed to engineering students that contributes with the learning of the basic fundamentals of mechanical waves, thermodynamics and electricity, in an active learning environment.

- b. Prerequisites

PHYSICS I - FISG1001

MULTIVARIABLE CALCULUS - MATG1002

- c. This course is: Required

#### 6. Specific goals for the course

- a. Specific outcomes of instruction

1.- Apply the definition of mechanical waves in the description of the propagation of energy.

2.- Analyze the thermal properties of matter and the laws of thermodynamics in the calculation of the transfer of energy in thermal processes.

3.- Solve problems related to electrostatics, electric fields, electric potential (electric field potential/potential drop/electrostatic potential), capacitance, and electrical circuits of direct current.

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

- An ability to function on multidisciplinary teams

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

- 1.- Waves and acoustics
- 2.- Thermodynamics



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#### 3.- Electricity