

Academic Year: ( 2021 / 2022 )

Review date: 04-06-2021

Department assigned to the subject: Department of Electronic Technology, Department of Mechanical Engineering

Coordinating teacher: DIAZ ALVAREZ, ANTONIO

Type: Compulsory ECTS Credits : 6.0

Year : 4 Semester : 1

## OBJECTIVES

This section presents the competences associated with the subject:

- CB1: That students have demonstrated to possess and understand knowledge in an area of study that starts from the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects They involve knowledge coming from the cutting edge of your field of study.
- CB2: That students know how to apply their knowledge to their work or vocation in a professional way and possess the competencies that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.
- CB3: That students have the ability to gather and interpret relevant data (usually within their study area) to make judgments that include a reflection on relevant issues of a social, scientific or ethical nature.
- CB4: That students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.
- CB5: That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy
- CG1: Write, represent and interpret technical documentation related to Security.
- CG4: Maintain a critical and constantly updated attitude regarding knowledge about global security.
- CE13: Know the basic computer systems and know how to handle document management tools, statistics, databases related to crimes, social phenomena and preparation of operations.
- CE21: Know the electronic, communication and comprehensive protection technologies.
- CT4: Motivation and ability to engage in autonomous lifelong learning, which allows them to adapt to new situations.

The learning outcomes are as follows:

- RA1. The acquisition of basic normative, theoretical or conceptual knowledge that supports and allows to properly guide the reflection and understanding of their activities with a scientific-technological base that allows to rigorously address the situations related to their profession.
- RA3. Train the graduate in a set of social, interpersonal, emotional and work competencies in a multidisciplinary and international environment.

## DESCRIPTION OF CONTENTS: PROGRAMME

Contents conducive to the acquisition of knowledge in:

- Comprehensive protection technologies for people and infrastructures.
- Analysis of personal protections for security.
- Basic principles of the dynamic behavior of materials intended for protection.
- Basic concepts of ballistics and explosion as well as the main methodologies and protocols for testing and manufacturing said personal protections.
- Vehicle and infrastructure protections.
- Electronic and communication technologies (detection systems, access control systems, surveillance, communication and transmission).

## LEARNING ACTIVITIES AND METHODOLOGY

Due to the uncertainty about the teaching format to which the health circumstances will take us during the next academic year, it is expected to start in the blended modality, and may lead to 100% face-to-face or 100% on-line training as the spread or the control over the pandemic and the hygiene-sanitary

norms that the Authorities of the sector dictate.

#### ASSESSMENT SYSTEM

Continuous evaluation:

The subject is based on two clearly defined fields that distribute the subject's grade to 50%. The part of shields and protections, will be evaluated through a single test that computes at 50%. The electronics part, in which the laboratory practices are carried out, distributes the weight in 40% of the practices and 10% of the exam.

Attendance at practices and the realization of the respective report is mandatory.

<b>% end-of-term-examination:</b>	60
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	40

#### BASIC BIBLIOGRAPHY

- Mohamed A. El-Reedy Blast Resistance Building Design, Smashwords, 2019
- National Research Council Protecting Buildings from Bomb Damage , The National Academies Press, 1995