

## Bachelor Thesis

Academic Year: ( 2023 / 2024 )

Review date: 27-04-2023

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: GÓMEZ TORRES, MARÍA SOLEDAD

Type: Bachelor Thesis ECTS Credits : 12.0

Year : 4 Semester :

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

A high degree of progress in the curriculum (80% of the subjects to third course approved).

## OBJECTIVES

- Apply and integrate the knowledge acquired during the degree to design security systems and the development of plans for management.
- Troubleshooting.
- Ability to apply knowledge in practice.
- Ability to generate new ideas (creativity).
- critical attitude towards current knowledge.
- Concern for quality aspects of engineering in industry.
- Achievement motivation.
- Interest investigate and find solutions to new problems related to this field of engineering.
- Ability to communicate knowledge orally and in writing to both specialist and non-specialist audiences.
- Ability to establish good interpersonal communication and work in multidisciplinary and international teams.
- Ability to organize and plan their work, making the right decisions based on the information available, gathering and interpreting relevant data to make judgments within their area of study.
- Motivation and ability to engage in an autonomous lifelong learning, enabling them to adapt to new situations.
- Capacity for analysis and synthesis
- Ability to organize and plan
- Ability to abstraction and deduction.

## DESCRIPTION OF CONTENTS: PROGRAMME

Original to present and defend before a university tribunal, consisting of a comprehensive project in the field of security, professional nature, in which the skills acquired in the teachings, or work innovative development of an idea synthesise exercise , a prototype or model of an equipment or system, one of the areas of security.  
The TFG must be related to any line of research of interest to the UC3M and the Guardia Civil.

## LEARNING ACTIVITIES AND METHODOLOGY

- Tutorials and group work (2 ECTS)
- Personal work (10 ECTS)

## ASSESSMENT SYSTEM

**FINAL EVALUATION.** It will be done through an oral test Defense Project Final Degree in court elected to assess the effect of student work, the results obtained and the disclosure thereof according to a rubric or evaluation matrix. Previously, students will develop a work memory that will be delivered to members of the court in due time. The percentage of valuation will be 100%.

The assessment mission is to know the degree of compliance with the learning objectives, so all the student's work will be assessed by developing memory (TFG) public exhibition and defense before a court.

The Commission of Inquiry CUGC, proposed by the Coordinator CUGC in this field, set the date, time and place of the defense of the TFG presented to a call, and that the courts assessed.

The court sessions will be public; they will be held during school hours of morning or afternoon and may attend all members of the university community and persons invited by the Court or students summoned.

The Court awarded each student / to a maximum of 25 minutes to make an oral presentation of their work. Then members of the Tribunal may ask the student questions they deem appropriate related to the work presented and it must answer.

After the public defense, the Court shall complete the Single Act for each TFG. The rating of the Court shall be 0 to 10 points (in which continuous assessment and result is included). In the event that the note is less than five, the Court point out the defects appreciated, indicating the modifications that will be necessary to carry out the TFG in a second call for the defense thereof.

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## BASIC BIBLIOGRAPHY

- Moure Colón, F. Rodríguez Millán, M. y Miguélez Garrido, H. Metodología de la elaboración de trabajos de fin de grado y postgrado relacionados con líneas de investigación de interés de la Guardia Civil. , Centro Universitario de la Guardia Civil., 2015

## ADDITIONAL BIBLIOGRAPHY

- García Palomero, I., & Moure Colón, F. Metodología de la Investigación en 4D. Soporte didáctico para el Diseño, Desarrollo, Defensa y Difusión de trabajos de investigación de la Guardia Civil. , Ministerio del Interior, 2011

## BASIC ELECTRONIC RESOURCES

- Fidiás G. Arias . The research project, guidance for processing: <http://www.monografias.com/trabajos-pdf/proyecto-investigacion/proyecto-investigacion.pdf>  
- UC3M . Trabajo Fin de Grado. Inicio: <http://uc3m.libguides.com/TFG/>