

## 1. OVERVIEW

<b>Subject Area</b>	End-of-Degree Project
<b>Degree</b>	Bachelor's Degree in Medicine
<b>School/Faculty</b>	Biomedical and Health Sciences
<b>Ac. Year</b>	6º
<b>ECTS</b>	9
<b>Type</b>	Compulsory
<b>Language(s)</b>	Spanish
<b>Delivery Mode</b>	On campus
<b>Semester</b>	Yearly
<b>Academic Year</b>	2023-2024
<b>Coordinating teacher</b>	Rocío Queipo

## 2. INTRODUCTION

### LEGISLATION

The Royal Decree 1393/2007, of 29 October, regarding the official standards for official university education, sets forth in its Article 12, the Guidelines for designing degree programmes. Section 12.7 establishes that the Final Degree Project (TFG by its Spanish acronym) shall be worth between 6 and 30 credits. It must be completed in the final part of the syllabus and be geared towards assessing all skills learnt throughout the degree programme.

### PRIOR REQUIREMENTS

- Only students who are enrolled on all pending subject areas required to complete their studies can enrol on the Final Degree Project module.
- If a student has failed any subject, they may still defend their Final Degree Project, so long as the total number of credits pending does not exceed 12. (the grade for the Final Degree Project will be added once all the pending credits have been completed)
- Any Final Degree Project which involves a study on people (personal data or biological samples) must be reviewed by an accredited ethics committee prior to commencement.

### COURSE OBJECTIVES

The Final Degree Project is a subject which forms part of the syllabus and involves completing a project in which the student applies the knowledge, skills and abilities acquired during the degree studies to a specific problem in the field of medicine.

## 3. SKILLS AND LEARNING OUTCOMES

Basic Skills (CB, by the acronym in Spanish):

- CB3 Students have the ability to gather and interpret relevant data (usually within their study area) to form opinions which include reflecting on relevant social, scientific and ethical matters.
- CB4 Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

- CB5 Students possess the learning skills necessary to undertake further study in a much more independent manner.
- CB9 Students are able to communicate their conclusions, as well as the knowledge and underlying reasons they are based on, to expert and non-expert audiences in a clear and concise way.
- CB10 Students possess the learning skills that enable them to continue studying in a way that will be mostly self-directed or independent.

General skills (CG, by the acronym in Spanish):

D) Communication skills:

21. Listen attentively, obtain and synthesise information regarding the problems troubling the patient and understand this information.
23. Communicate effectively and clearly, both orally and in writing, with patients, family members, media and other professionals.
24. Establish good interpersonal communication which allows you to efficiently and empathetically connect with patients, family members, media and other professionals.

F) Data handling:

- 31. Understand, critically assess and know how to use clinical and biomedical information sources to obtain, organise, interpret and communicate scientific and health information.
- 32. Know how to use information and communication technology in clinical, therapeutic, preventative and research activity.
- 33. Maintain and use patient information records for subsequent analysis while always maintaining data confidentiality.

**G. Critical Analysis and Research:**

- 34. In professional practice, maintain a critical, creative, constructively-sceptical and research-minded approach.
- 35. Understand the importance and limitations of scientific thinking in the study, prevention and management of diseases.
- 36. Be able to formulate hypotheses, gather information and critically evaluate information to solve problems following the scientific method.
- 37. Acquire basic training in research activity.

Cross-curricular skills (CT, by the acronym in Spanish):

- CT1: Communication: ability to engage in active listening, ask questions and respond in a clear and concise way, as well as to effectively express ideas and concepts. This includes concise and clear written communication.
- CT2: Leadership: ability to offer ideas, approaches and interpretations through strategies which offer solutions to real-life problems.
- CT4: Adaptability: ability to detect, interpret and respond to a changing environment. Ability to equip themselves and work effectively in different situations and/or with different groups or individuals. This means adapting to change depending on circumstances or needs. It involves the confidence to take on crucial challenges on a personal or group level, maintaining a good physical and mental health to allow work to be carried out effectively.
- CT5 Initiative: Ability to undertake difficult or risky actions with resolve.
- CT6: Problem solving: Ability to resolve an unclear or complex issue or situation which has no established solution and requires skill to reach a conclusion.
- CT8: Planning and organization: ability to set objectives and choose the right means to fulfil them through the efficient use of time and resources.
- CT10: Independent learning: the ability to govern your own development by choosing the most effective lines of action, strategies, tools and opportunities to independently learn and apply knowledge to practice.

Specific skills (CE, by the acronym in Spanish):

- CE68 Final Degree Project: Be able to undertake a final project which can link different subjects and show acquired skills for approaching and developing a basic or clinical problem using the scientific method.

Learning outcomes (RA, by the acronym in Spanish):

- RA1 (1.1): Understand and apply the knowledge and skills acquired in the degree.
- RA2 (1.2): Know how to use clinical and biomedical information technology and sources to obtain, organise, interpret and communicate clinical, scientific and health information.
- RA3 (1.3): How to create and develop an original piece of research.
- RA4 (1.4): Know how to present and defend the project in public.

The following table shows how the skills developed in the subject area match up with the intended learning outcomes:

Skills	Learning outcomes
CB3 CB4 CB5 CB9 CB10 CF30, CF31, CF32, CG33 CG35, CG36 CE68 CT1 CT2 CT4 CT5 CT6 CT8 CT10	RA1 (1.1): Understand and apply the knowledge and skills acquired in the degree.
CF30, CF31, CF32, CG33 CG35, CG36	RA2 (1.2): Know how to use clinical and biomedical information technology and sources to obtain, organise, interpret and communicate clinical, scientific and health information.
CF31 CF32 CF33 CG35, CG36 CE68 CT1 CT2 CB10	RA3 (1.3): How to create and develop an original piece of research.
CB4, CB9 CE68 CT4	RA4 (1.4): Know how to present and defend the project in public.

## 4. CONTENTS

### Final Degree Project proposal with the professor

- Proposal of the work to be undertaken
- Literature searches
- Drawing up the work plan

### Completing the Final Degree Project

- Drawing up the project protocol and sending it to the ethics committee for approval
- Data collection
  - Questionnaires
  - Review of medical records
- Creating a database
- Performing data analysis
- Reporting results
- Writing the discussion and conclusions
- Preparing the scientific poster

## 5. TEACHING/LEARNING METHODS

The method used is project-based learning.

## 6. LEARNING ACTIVITIES

The types of learning activities, plus the amount of time spent on each activity, are as follows:

**On campus:**

Learning activity	Number of hours
Independent working	190 h
Tutorials	30 h
Oral presentation in public	5 h
<b>Total</b>	<b>225 h</b>

## 7. ASSESSMENT

The assessment methods, plus their weighting in the final grade for the subject area, are as follows:

The assessment methods, together with how much they each count towards the final weighting for the subject, are as follows

<b>CLINICAL TUTOR</b>		<b>25%</b>
<b>METHOD TUTOR</b>		<b>25%</b>
<b>TRIBUNAL</b>	<b>WRITTEN RECORD</b>	<b>30%</b>
	<b>ORAL PRESENTATION AND DEFENCE</b>	<b>20%</b>
<b>GLOBAL SCORE FOR FINAL DEGREE PROJECT</b>		<b>100</b>

Work produced in English will be rated positively

If the mark from the clinical tutor and the method tutor do not equal or exceed 5, the student will not be able to defend his/her project.

The mark from the tribunal (written record and public defence) must be equal to or superior to 5 to pass the subject.

### On campus:

<b>Assessment system</b>	<b>Weighting</b>
<b>CLINICAL TUTOR</b>	<b>25%</b>
<b>METHOD TUTOR</b>	<b>25%</b>
<b>WRITTEN RECORD</b>	<b>30%</b>
<b>ORAL PRESENTATION AND DEFENCE</b>	<b>20%</b>

On the Virtual Campus, when you open the subject area, you can see all the details of your assessment activities and the deadlines and assessment procedures for each activity.

### 7.1. Ordinary examination period

Only those students who meet the following requirements may present and defend the TFG in the ordinary call

- Have uploaded the work to the Black-board in an ordinary call with the consent of both tutors
- Have a maximum of 12 credits pending to finish the degree
- Have a positive resolution from the ethics committee if necessary

To pass the subject in the ordinary call, you must obtain a grade greater than or equal to 5.0 out of 10.0 in the final grade

### 7.2. Extraordinary exam period (resits)

Only those students who meet the following requirements may present and defend the TFG in an extraordinary call

- Have uploaded the work to the Black-board in an extraordinary call with the consent of both tutors
- Have a maximum of 12 credits pending to finish the degree
- Have a positive resolution from the ethics committee if necessary

To pass the subject in the extraordinary call, you must obtain a grade greater than or equal to 5.0 out of 10.0 in the final grade

## 8. BIBLIOGRAPHY

The recommended basic bibliography is indicated below. In classes, complementary bibliography for each topic will be indicated.

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- Pallás, J. M. A., & Villa, J. J. (2019). *Métodos de investigación clínica y epidemiológica*. Elsevier.
- M. Harris and G. Taylor "Medical Statistics Made Easy". ISBN-13: 978-1907904035
- Miguel Angel Martínez González "Bioestadística Amigable". Editorial Elsevier. ISBN 978-84-9022-500-4
- Ricardo Luis Macchi "Introducción a la estadística en Ciencias de la Salud". Editorial Médica Panamericana. EAN: 9789500606042

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Comunidad Autónoma de Murcia:

<http://www.murciasalud.es/publicaciones.php?op=mostrar&tipo=descriptores&id=2303&idsec=88>

Fisterra:

<http://www.fisterra.com/formacion/metodologia-investigacion/>

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