COURSE DATA

DATA SUBJECT

Code: 43079
Name: Master's final project
Cycle: Master's Degree
ECTS Credits: 18
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
2140 - Master's Degree in Medical Physics	Facultat de Física	1	Indefinite (Individuals)

SUBJECT-MATTER

Degree	Subject-matter	Character
2140 - Master's Degree in Medical Physics	Final project	MASTER THESIS PROJECT

COORDINATION

VIJANDE ASENJO JAVIER

CIBRIAN ORTIZ DE ANDA ROSA MARIA

SUMMARY

In this subject the student is trained to know and develop the experimental bases on which the current research in Medical Physics is based. That is why it has an eminently practical character and focuses on the techniques and methodologies of the applications of Physics to Medicine.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

2140 - Master's Degree in Medical Physics

Acceder a herramientas en el área de Física que puedan ser susceptibles de aplicación a la Medicina y valorar su aplicabilidad e interés.

Be able to access the information required (databases, scientific articles, etc.) and to interpret and use it sensibly.

Be able to access to information tools in other areas of knowledge and use them properly.

Be able to integrate new technologies in their professional and/or research work.

Be able to make quick and effective decisions in professional or research practice.

Critically analyze both his/her work and that of the colleagues.

Design the objectives of a research work, propose the experimental study to carry it out, use the appropriate data treatment and draw up its conclusions.

Elaborar una memoria clara y concisa de los resultados de su trabajo y de las conclusiones obtenidas.

Emplear las herramientas básicas para el tratamiento de datos experimentales en la investigación.

Have a proactive attitude towards possible changes that may occur in their professional and/or investigative work.

Know how to work in multidisciplinary teams reproducing real contexts and contributing and coordinating their own knowledge with that of other branches and participants.

Planificar y gestionar la utilización de las técnicas físico-médicas teniendo en cuenta los principios básicos de control de calidad, prevención de riesgos, seguridad y sostenibilidad.

Project the knowledge on specific problems and know how to summarize and extract the most relevant arguments and conclusions for their resolution.

Saber redactar y preparar presentaciones para posteriormente exponerlas y defenderlas en público.

Seleccionar la instrumentación apropiada para el estudio a realizar y aplicar sus conocimientos para utilizarla de manera correcta.

Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.

Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.

Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.

Students should demonstrate self-directed learning skills for continued academic growth.

Students should possess and understand foundational knowledge that enables original thinking and research in the field.

To acquire a critical attitude that allows you to make reasoned judgments and defend them with rigor and tolerance.

To acquire basic skills to develop laboratory work in biomedical research.

Use the different exhibition techniques oral, written, presentations, panels, etc., to communicate the knowledge, proposals and positions.

DESCRIPTION OF CONTENTS

1. Research on Medical Physics topics

Research topics may be developed in various topics related to Medical Physics corresponding to the lines of research of the Master's professors, or, where appropriate, of special interest to the student.

2. How to Conduct a Systematic Review

How to carry out a Systematic Review using an appropriate methodology. PICO question, PRISMA methodology.

3. Publishing Research Studies

How to publish a research study in a high-impact journal.

4. Introduction to Statistics

Basic Statistics aimed at acquiring fundamental knowledge of statistical data processing, useful for the Master's Thesis.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at supplementary activities	4,00
Monitoring and tutoring of the master's thesis	50,00
Presentation and defence of the master's thesis	1,00
Total hours	**55,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Independent preparation of the master's thesis	310,00
Preparation of the master's thesis project	85,00
Total hours	**395,00**

TEACHING METHODOLOGY

Development of a research project

EVALUATION

Public or synchronous videoconference exposition before a court of the work done.

The student, 15 days before the TFM exhibition, will put the memory in pdf format at the Electronic Office of the Universitat de València-ENTREU (https://webges.uv.es/uvEntreuWeb/).

The characteristics that the TFM must have is advertised on the master's website

If the presentation of the TFM is made by videoconference, the day before said presentation, you must upload a powerpoint file to the virtual classroom with which you are going to make the presentation.

The exposure of the TFM should not exceed 15 minutes.

Evaluation of the Master's Final Project, memory, presentation and oral defense of the same

EVALUATION OF THE WRITTEN MEMORY:

The scientific or technical value of the topic will be valued, the scientific argumentation: the correct and complete description of the contents, the way in which the student has stated and discussed the results obtained and the validity of the conclusions obtained, statistical analysis, where appropriate, and academic rigor: structuring and presentation of the manuscript with an adequate use of written language. (30%)

EVALUATION OF THE ORAL EXHIBITION:

The clarity of the exposition, the adequate distribution of time between the presentation of the topic and the presentation of the results and conclusions, the correct use of language, the adequacy of the visual presentation and the scientific knowledge of the topic. The adequate answer to the commission's questions (60%).

TUTOR'S REPORT: 10%

The course is passed with a grade equal to or greater than 5.

Evidence of copying or plagiarism in master¿s final project will result in failure to pass the subject and in appropriate disciplinary action being taken. Please note that, in accordance with article 13. d) of the Statute of the University Student (RD 1791/2010, of 30 December), it is the duty of students to refrain from using or participating in dishonest means in assessment tests, assignments or university official documents.

In the event of fraudulent practices, the ¿Action Protocol for fraudulent practices at the University of Valencia¿ will be applied (ACGUV 123/2020):

https://www.uv.es/sgeneral/Protocols/C83sp.pdf

REFERENCES