COURSE DATA

DATA SUBJECT

Code: 43544
Name: Master's final project
Cycle: Master's Degree
ECTS Credits: 15
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
2162 - Master's degree in Remote Sensing	Facultat de Física	1	Indefinite (Individuals)

SUBJECT-MATTER

Degree	Subject-matter	Character
2162 - Master's degree in Remote Sensing	Master's final project	MASTER THESIS PROJECT

COORDINATION

COLL COMPANY CESAR

SUMMARY

This is a mandatory 15 ECTS course offered during the second semester of the academic year (between April and June).

It consists of conducting a research project on any topic related to remote sensing, in both its applied and theoretical aspects, under the supervision of a supervisor. Based on this research, a report is written, and the most relevant results are presented orally and publicly.

The University of Valencia's Virtual Classroom platform will be used for communication, as with the other courses.

At the beginning of the academic year, the Master's program professors will submit their proposed Master's Thesis (TFM) topics to the Academic Committee (CCA), with a minimum of one and a maximum of three. The CCA will approve the list of topics and supervisors.

At the end of the first semester of the academic year, the Academic Committee (CCA), after considering the students' preferences through their academic advisors and the professors supervising their Master's theses, will assign a topic and a Master's thesis supervisor to each student so that at the beginning of the

second semester, each student will know their thesis topic. The CCA will resolve any conflicts that may arise between a student and their Master's thesis supervisor.

The Master's thesis will adhere to the regulations of the University of Valencia (see the link https://www.uv.es/uvweb/universidad/es/estudios-postgrado/masteres-oficiales/trabajo-fin-master-1285846160620). The length and format of the Master's thesis are flexible, following the standard format for scientific publications. Students may complete the activities in Spanish, Valencian, or English, by mutual agreement with their Master's Thesis Supervisor.

The course grade will be determined by a panel of three Master's professors, who will take into account the supervisor's evaluation.

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

2162 - Master's degree in Remote Sensing

Aplicar los conocimientos adquiridos con criterios de sostenibilidad de nuestro entorno.

Aplicar técnicas de clasificación supervisada y no supervisada y saber establecer los criterios e idoneidad de cada técnica sobre distintas resoluciones espaciales y espectrales de las imágenes.

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.

Conocer las características básicas de los formatos de almacenamiento de las imágenes de teledetección y ser capaz de acceder a ellas y aplicarles todas las correcciones que necesitan según los distintos intervalos espectrales y las técnicas de validación para los distintos tratamientos que requieran.

Conocer y utilizar las fuentes de información bibliográfica y las bases de datos de imágenes de satélite para extraer información, sintetizarla, desarrollarla y aplicarla en aspectos concretos de la teledetección aplicando la metodología de la investigación científica.

Entender, asimilar y saber utilizar los sistemas de información geográfica.

Entender y saber utilizar técnicas avanzadas de tratamiento de imágenes para extraer y analizar la información de interés contenida en las imágenes.

Exponer y defender públicamente el desarrollo, resultados y conclusiones de su trabajo de una manera clara y concisa.

Leer, visualizar y extraer parámetros físicos de los datos que proporcionan las imágenes de satélite en distintos intervalos espectrales y saber aplicar las técnicas de tratamiento de imágenes más generalizadas.

Saber escoger las imágenes idóneas para cada tipo de aplicación a desarrollar de teledetección, realizando las correcciones que requieran y utilizando las técnicas de tratamiento de imágenes más adecuadas al objetivo buscado.

Saber utilizar los programas comerciales de tratamiento digital de imágenes y programar a nivel de usuario de estos.

Ser capaces de realizar una toma rápida y eficaz de decisiones.

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.

DESCRIPTION OF CONTENTS

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at supplementary activities	0,00
Monitoring and tutoring of the master's thesis	12,00
Presentation and defence of the master's thesis	1,00
Total hours	**13,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Independent preparation of the master's thesis	200,00
Preparation of the master's thesis project	162,00
Total hours	**362,00**

TEACHING METHODOLOGY

According to the verified Master's program document, the teaching methodologies applied in this subject are:MD4. Personalized tutoring sessions to resolve doubts or questions raised during the development of the training activities.MD6. Master's Thesis. Students carry out an individual research project on topics related to remote sensing, of a basic or applied nature. A thesis report is prepared, and an oral presentation and defense are given.

EVALUATION

The assessment system for this subject, in both the first and second examination periods, consists of:- Evaluation report from the Master's Thesis Supervisor on the student's work (0 to 10, 40% of the final grade).- Evaluation by a panel of three Master's program professors, of the written Master's Thesis and its presentation and public defense before the panel (0 to 10, 60% of the final grade).Both items can be retaken in the second examination period.

REFERENCES

Bibliography depending on the topic of the Master's thesis