

**COURSE DATA****Data Subject**

Code	43983
Name	Methodological tools in mathematical research
Cycle	Master's degree
ECTS Credits	3.0
Academic year	2022 - 2023

Study (s)

Degree	Center	Acad. year	Period
2183 - M.D. in Mathematical Research	Faculty of Mathematics	1	First term

Subject-matter

Degree	Subject-matter	Character
2183 - M.D. in Mathematical Research	3 - Methodological tools in mathematical research	Obligatory

SUMMARY

Writing and processing of scientific texts with LaTeX. Process of writing and publishing an article.

PREVIOUS KNOWLEDGE**Relationship to other subjects of the same degree**

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

Other requirements

No se requieren conocimientos previos.

OUTCOMES



2183 - M.D. in Mathematical Research

- Students should demonstrate self-directed learning skills for continued academic growth.
- Saber escribir una memoria de un trabajo académico realizado.
- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- Que los estudiantes sepan aplicar los conocimientos y habilidades adquiridas planificando el tiempo y los recursos disponibles.
- Que los estudiantes sean capaces de acceder a las bases de datos bibliográficas especializadas utilizando las nuevas tecnologías.
- Que los estudiantes sepan recopilar la información necesaria para abordar un problema y sintetizarla.
- Saber buscar información bibliográfica matemática.
- Que los estudiantes sean capaces de comprender de manera autónoma artículos de investigación o innovación en alguna de las áreas de las Matemáticas.
- Que los estudiantes sean capaces de sintetizar el contenido de seminarios y coloquios sobre temas de alguna de las áreas en Matemáticas.
- Que los estudiantes sepan elegir y utilizar herramientas informáticas adecuadas para abordar problemas relacionados con las Matemáticas y sus aplicaciones.
- Que los estudiantes sean capaces de diseñar, desarrollar e implementar programas informáticos eficientes para abordar problemas relacionados con las Matemáticas y sus aplicaciones.

LEARNING OUTCOMES

English version is not available

DESCRIPTION OF CONTENTS

1. The LaTeX system

Installation and Introduction to LaTeX system

Document types and structures thereof

Mathematical formulas

BibTeX bibliographies

Presentations with LaTeX

**2. Writing a paper**

The dawn of a scientific paper
Process of publishing an article
Reporting a pre-publication
papers and book reviews
Presentations at conferences

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
TOTAL	30,00	

TEACHING METHODOLOGY

English version is not available

EVALUATION

Student assessment will be continuous and will be based on attendance, participation in it, questions in class and delivery and exhibition of works. In cases where justified for reasons students can not attend all the classes other alternative evaluation system will remember.

For students who are granted the exemption to attend class by the UPV, they will be assessed on-line, having to present the same work as the rest of the students. The exhibition of them will take place on Skype.

REFERENCES**Basic**

- El libro de Latex (Bernardo Cascales y otros)
- The Latex companion (Frank Mittelbach)
- Writing mathematics well : A manual for authors (Leonard Gillman)
- Mathematical writing (Donald E. Knuth)
- Handbook of writing for the mathematical sciences (Nicholas J. Higham)