1. COURSE TITLE

Communication and Scientific Documentation/ Data Analysis

1.1. Course number

32507

1.2. Content area

Basic training

1.3. Course type

Compulsory

1.4. Course level

Master Degree

1.5. Year

First

1.6. Semester

First semester (Fall)

1.7. Language

English

1.8. Prerequisites

General requirements of the master

1.9. Minimum attendance requirement

Mnimum assistance 80% (theoretical and practical clases)

English

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Nivel: Posgrado oficial
Tipo: Obligatoria
Nº Créditos: 3 ECTS
Curso académico: 2017-2018

1.10. Faculty data

Part 1:
Tanya Romancho
Tanya.romacho@uam.es

Rafael Leon
Rafael.leon@inv.uam.es

Cristobal de los Rios
cristobal.delosrios@inv.uam.es

Pilar Barredo
Pilar.barredo@uam.es

Mª Amelia de la LLana Martín
 amelia.delallana@uam.es

Part 2:
Carlos Oscar Sánchez Sorzano
 coss@cnb.csic.es

Contact hours: Previous e-mail appointment is required

1.11. Course objectives

Part 1:
The subject aims to show the importance of the sources of scientific documentation. It is focused to develop practical skills in bibliographic searches, reference management, critical evaluation of bibliographic resources and to be able to apply this knowledge finally in the elaboration of the scientific works.

Part 2:

- To know the principles of the scientific method and biomedical research
- To know the main statistical procedures of application in the health sciences
- Design and conduct simple research studies using statistical methodology.
- To know how to use some software of statistical analysis.
- Interpret correctly the statistical results of the scientific medical literature.

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1.12.   Course contents

Part 1:
1. How to write a scientific paper
2. PubMed I
3. PubMed II
4. Research resources: JCR, SCOPUS, ORCID, Researchgate
5. Reference managers: Refworks, Endnote
6. SciFinder
7. SciFinder-PubChem
8. Electronic records in clinical practice

Part 2:
1. Statistics and probability: from sample to population (1h)
2. Confidence intervals (1h)
3. Continuous variables (2h)
4. P-values and statistical significance (2h)
5. Statistical assumptions (1h)
6. Statistical tests (3h)
7. Fitting models (3h)
8. Sample size (2h)
9. Experimental design (1h)

Practices included: Prism

1.13.   Course bibliography

Part 1:
- Bibliography of each of the contents will be provided through Moodle

Part2:
- Book: H. Motulsky. Intuitive Biostatistics: A Nonmathematical Guide to Statistical Thinking, 3rd edition. Oxford University Press (2013
- Alvarez Cáceres,R.Estadística aplicada a las Ciencias de la Salud. Ediciones Diaz de Santos.2007.
- Carrasco, JL, López MR, Casanova,JF, Garcia JJ, Pueyo A,Hortelano M. Ejercicios y problemas de Estadística Médica. Ed. Ciencia 3. 1994.
- Martín Andrés A, Luna del CastilloJD. Bioestadística para las ciencias de la salud. Norma. 2004.
- Milton JS. Estadística para Biología y Ciencias de la salud (edición revisada, actualizada y ampliada). McGraw-Hill Interamericana. 2012.
- Pardo A, Ruiz MA. Análisis de datos con SPSS. Mc Graw-Hill Madrid.2005.

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2. Teaching methodology

<u>Part 1:</u>
Theoretical classes accompanied by practical classes for the development of informational skills in pharmacological research.

<u>Part 2:</u>
Theoretical classes: oral presentation by the professor of the contents theorists of each theme. In the sessions will be used material (presentations, web pages ...) available on the teaching in network.
Practical classes: resolution of assumptions and problems with a statistical package.

3. Student workload

		N° de horas	Porcentaje
Contact hours	Theoretical classes	15h	41% =31h
	Practical classes	10 h	
	Tutor hours	2h	
	Others		
	Examination	4h	
Non contact hours	Practicum	19h	59 %= 44 h
	Study hours	20h	
	Preparation of exam	5h	
Total hours: 25 h x 3 ECTS		**75**	

4. Evaluation procedures and weight of components in the final grade

<u>Part 1:</u>
Performing bibliographic searches and writing a reasoned bibliography in a time of 1 hour.

<u>Part 2:</u>
Final written examination with questions of brief development and completion of an exercise and resolution of problems. 1 h

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To pass the subject it is necessary to have a score other than zero for each of the evaluation criteria.

5. Course calendar

Week	Contents	Contact hours	Independent study time
1	Theoretical classes	9	12
2	Practical classes	9	12
3	Tutor hours	9	15
4	Exam	2	7