

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

<b>Code</b>	34734
<b>Name</b>	Introduction to research into dentistry and the publication and dissemination of results
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	6.0
<b>Academic year</b>	2017 - 2018

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
1206 - Degree in Dentistry	Faculty of Medicine and Odontology	2	Second term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1206 - Degree in Dentistry	31 - Introduction to research in dentistry, publication and dissemination of results	Optional

**Coordination**

<b>Name</b>	<b>Department</b>
ALONSO ARROYO, ADOLFO	225 - History of Science and Documentation
MONTIEL COMPANY, JOSE MARIA	131 - Stomatology

**SUMMARY**

It's an optional subject that offers to the student an introductory vision of how the science works in dentistry, and the way of thinking and acting of the science for the acquisition of new knowledge applied to a branch of knowledge with peculiar characteristics like dentistry.

This must stimulate the student's critical thinking, necessary in a world that changes rapidly, and allow him imply with more safety in works of investigation of different type and aim.

The subject is divided in 2 big thematic units that are given by two different departments: Department of Stomatology and the Department of History of the Science and Documentation.



## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

#### 1206 - Degree in Dentistry :

#### 1210 - Grado de Odontología 2012 :

R4-OBLIGATION TO HAVE SUCCESSFULLY COMPLETED THE COURSE

34703 - Biostatistics and public health

34708 - Documentation, professionalism and forensic dentistry

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34708 - Documentation, professionalism and forensic dentistry

### Other requirements

Its advisable to have previous knowledge of statistics, managing of computers and capacity for reading scientific papers in English.

## OUTCOMES

### 1206 - Degree in Dentistry

- Promover el aprendizaje de manera autónoma de nuevos conocimientos y técnicas, así como la motivación por la calidad.
- Conocer, valorar críticamente y saber utilizar las fuentes de información clínica y biomédica para obtener, organizar, interpretar y comunicar la información científica y sanitaria.
- Saber compartir información con otros profesionales sanitarios y trabajar en equipo.
- Conocer el método científico y tener capacidad crítica para valorar los conocimientos establecidos y la información novedosa.

## LEARNING OUTCOMES

- To realize an effective bibliographical search.
- To distinguish and to classify the scientific articles and other sources of information, based in the level of evidence.
- To realize critical readings of scientific papers.
- To elaborate a scientific communication (poster) and exhibit to other professionals.



- To obtain an aim of investigation in collaborative work.
- To know the principal types of designs of investigation in dentistry.
- To elaborate a protocol of investigation adapted to the question of investigation.
- To analyze and to choose the strategy of analysis of information depending on the type of design of investigation.

## DESCRIPTION OF CONTENTS

### 1. DENTISTRY RESEARCH

- Topic 1: The scientific method. Causality and confusion. Phases of the investigation.
  - Topic 2: The ethics in the investigation.
  - Topic 3: Types of studies. Experimental studies and studies observacionales: cross streets, cases and controls and of cohorts.
  - Topic 4: The sampling and the sample size. Power of a study.
  - Topic 5: Measures of frequency and of association. Sensibility and specificity. Conformity. Survival.
  - Topic 6: Design and validation of questionnaires.
  - Topic 7: Production of a protocol of investigation.
  - Topic 8: Evidence based Dentistry and critical reading.
  - Topic 9: Systematic Review and metaanálisis.
- Practice: Analysis and interpretation of data using SPSS:
- Practice 1: Cross-sectional Study.
- Practice 2: Analyzing the confusion and the modification of the effect.
- Practice 3: experimental Study.
- Practice 4: Cohorts and survival studies.
- Practice 5: diagnostic Tests.
- Practice 6: Validation of questionnaires.

### 3. PUBLICATION AND DIFFUSION OF RESULTS.

- Topic 1: The transfer of the scientist technical information.
- Topic 2: The scientific information in health sciences.
- Topic 3: Databases in health sciences.
- Topic 4: Draft and publication of the scientific work
- Topic 5: The bibliographical reference.
- Topic 6: The Open Access in Science.
- Topic 7: Evaluation and impact of the sources of information and scientific literature.

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	27,00	100
Computer classroom practice	18,00	100
Classroom practices	15,00	100
Development of group work	20,00	0
Development of individual work	10,00	0
Study and independent work	40,00	0
Readings supplementary material	10,00	0
Preparation of practical classes and problem	10,00	0
<b>TOTAL</b>	<b>150,00</b>	

**TEACHING METHODOLOGY****Theoretical classes:**

The theoretical orientation of the teacher, by means of magisterial participative classes close to the recommended bibliography they constitute practices the base of the constructive learning process of the pupil

**Practical classes:** The practical application of the theoretical contents materializes in the accomplishment of several practices with obligatory character. The works, depending on the content can be realized individually or collectively and are submitted to the calendar of presentation established by the teacher. The use of computers is an important prop in the learning of our aims. Practices are realized in the classroom of computer science for the accomplishment of search of scientific information in databases.

**Tutorships:** The tutorships constitute a weekly space of meeting and debate between the teacher - student with the aim to solve problems of learning during the course.

**EVALUATION**

The evaluation consists:

**1. Multiple-choice questionnaire (50 %):** a test of 50 questions with four answers, of that only one is correct. It divides in 2 parts, of 25 questions each one and that must be approved separately, corresponding to both big thematic units of the subject: dentistry research on the one hand and publication and diffusion of results for other one. Every right response adds 1 point but every erroneous response reduces 0,25 points . This multiple-choice questionnaire represents 50 % of the final score and is necessary approved by a minimal score of 25 points, minimum of 12,5 in each one of both, on a total of 50 points.



**2. Practical work (50 %):** It consists of a series of practical exercises on the matter, of individual form or of group. This practical work represents 50 % of the final score and is approved by the accomplishment of all the proposed practices with a minimum of 25 points on 50. Every thematic unit contributes 25 % of the final score (25 points) and must be approved separately reaching a minimum of 12,5 points.

The subject excels itself with a final score of 5, proved from the sum of the scores obtained in the theoretical and practical part of every part, and divided by 10, providing that each one of both reports is approved separately.

The composition of the final score is solved of the following way:

	<b>TU1: Dentistry Research</b>	<b>TU2: Publication and difussion of results</b>
Multiple-choice questionnaire (50%)	Maximum 25 points (minimum for approve 12,5 points)	Maximum 25 points (minimum for approve 12,5 points)
Practical work (50%)	Maximum 25 points (minimum for approve 12,5 points)	Maximum 25 points (minimum for approve 12,5 points)
<b>Total of each thematic unit:</b>	Maximum 50 points (minimum for approve 25 points)	Maximum 50 points (minimum for approve 25 points)
	<b>Final score of the subjetc</b> Maximum 100 points Sum of the punctuation obtained in every UT/10	





## REFERENCES

### Basic

- JOSEP MARIA RAMON TORRELL. Métodos de investigación en odontología. Ed. Elsevier Masson. Barcelona (2000).
- JOSEP MARIA ARGIMON PALLAS Y JOSEP JIMENEZ VILLA. Métodos de investigación clínica y epidemiológica. Ed. Elsevier 3º ed Barcelona (2004).
- J JIMENEZ VILLA Y COLS. Publicación científica biomédica. Cómo escribir y publicar un artículo de investigación. Ed. Elsevier Barcelona (2010).
- CORDÓN GARCÍA, JOSÉ ANTONIO; LÓPEZ LUCAS, JESÚS; VAQUERO PULIDO, JOSÉ RAÚL. Manual de búsqueda documental y práctica bibliográfica. Madrid: Pirámide, 1999.
- CORDÓN GARCÍA, JOSÉ A; ALONSO ARÉVALO, JULIO; GÓMEZ DIAZ, RAQUEL; LÓPEZ LUCAS, JESÚS. Las nuevas fuentes de información. Información y búsqueda documental en el contexto de la web 2.0. Madrid: Pirámide, 2010.
- GREENHALGH, TRISHA. Cómo interpretar un artículo médico. Fundamentos de la medicina basada en la evidencia. Barcelona: Medical Trends, 2000.
- LÓPEZ YEPES, JOSÉ (coord.). Manual de ciencias de la documentación. 2º ed. Madrid: Pirámide, 2006.
- MARTÍN VEGA, ARTURO. Fuentes de información general. Gijón: Trea, 1995.
- REYES GÓMEZ, FERMÍN. Manual de bibliografía. Madrid: Castalia, 2010.