

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

Code	41091
Name	Basic odontological research
Cycle	Master's degree
ECTS Credits	15.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
2006 - M.U. en Ciencias Odontológicas 09-V.1	Faculty of Medicine and Odontology	1	Second term
3143 - Dentistry	Doctoral School	0	First term

Subject-matter

Degree	Subject-matter	Character
2006 - M.U. en Ciencias Odontológicas 09-V.1	2 - Basic research in dentistry	Obligatory
3143 - Dentistry	1 - Complementos de Formación	Optional

Coordination

Name	Department
MONTIEL COMPANY, JOSE MARIA	131 - Stomatology

SUMMARY

The formative activities will be directed to the knowledge and training on the part of the student of those tools that the scientific method demands. This way it will learn and qualify the pupil in the systems of search of bibliographical appointments and analysis of veracity in the found publications (5 credits); general procedure of common area in the accomplishment of scientific publications and how to realize a scientific exhibition as well as the knowledge and managing of the tools mas common of audio-visual presentation (5 credits); ethics in the publications and Odontometría's analysis (5 credits).



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

The profile of recommended revenue is Licentiate or grade in Dentistry, Licentiate or grade in medicine and Medical specialists in Stomatology

Previous competences recommended for a better utilization of the master:

Knowledge of English language (level of reading and comprehension of scientific texts in the area of the Sciences of the Health).

Knowledge of computer science to level of advanced user of programs Word, Excel, Acces, Powerpoint.

OUTCOMES

2006 - M.U. en Ciencias Odontológicas 09-V.1

- Saber aplicar los conocimientos adquiridos y ser capaces de resolver problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio.
- Saber comunicar sus conclusiones y los conocimientos y razones últimas que las sustentan a públicos especializados y no especializados de un modo claro y sin ambigüedades.
- Ser competentes en el desarrollo de las técnicas de investigación propias del ámbito de la Estomatología y la Odontología, así como en la evaluación e interpretación de los resultados obtenidos mediante las mismas.
- Ser capaces de trabajar en un grupo de investigación consolidado.
- To have the ability to choose the more suitable laboratory technique or techniques to deal with the research problem set out.
- Be able to integrate knowledge and handle the complexity of formulating judgments based on information that, while being incomplete or limited, includes reflection on social and ethical responsibilities linked to the application of knowledge and judgments.
- Poseer las habilidades de aprendizaje que les permitan continuar estudiando de un modo que habrá de ser en gran medida autodirigido o autónomo
- Ser competentes en la realización de una búsqueda bibliográfica, estructurar un trabajo científico metodológicamente correcto, así como de realizar la publicación correspondiente y/o la presentación científica de su trabajo.
- Ser competente en identificar el nivel de evidencia científica atribuible a las publicaciones revisadas sobre el tema de investigación a desarrollar.



LEARNING OUTCOMES

The application of the acquired knowledge and the aptitude to solve problems in environments new or little known inside more wide contexts (or multidisciplinary) related to his area of study (competence number 1).

The aptitude to integrate knowledge and to face the complexity of formulating judgments from an information that, being incomplete or limited, includes reflections on the social responsibilities and ethics linked to the application of his knowledge and judgments (competence number 2).

The communication of conclusions (and the knowledge and last reasons that sustain them) to public specialized and not specialized in a clear way and without ambiguities (competence number 3).

The skill to continue studying of a way self-guided or autonomous (competence number 4).

The work in a group of investigation consolidated (competence number 5).

The development of the own technologies of investigation of the area of Dentistry, as well as in the evaluation and interpretation of the results obtained by means of the same ones (competence number 6).

The choice of the technology or laboratory technologies most adapted to the problem of investigation raised (competence number 7).

The accomplishment of a bibliographical search, to structure a scientific methodologically correct work, as well as of realizing the corresponding publication and / or the scientific presentation of his work (competence number 8).

The identification of the level of scientific evidence attributable to the publications checked on the topic of investigation to developing (competence number 9).

DESCRIPTION OF CONTENTS

1. UTILIZATION AND OPTIMIZATION OF THE BIBLIOGRAPHICAL RESOURCES

bibliographical searches.

Databases bibliographical.

Record of the bibliography.

Types of cards.

Consultations and IT means of the Universitat of Valencia.

2. EVIDENCE BASED DENTISTRY



Evidence-based Dentistry Concept.
Critical thinking of cross-sectional studies.
Critical thinking of case and control studies.
Critical thinking of cohort studies.
Critical thinking of experimental studies.
Critical thinking of diagnostic studies.
Systematic review and meta-analysis.
Critical thinking of a systematic review and meta-analysis
Practice: Critical thinking of different studies.

3. SCIENTIFIC COMMUNICATION IN DENTISTRY.

Structure of scientific work. Characteristics of its elements.
Title, summary and introduction.
Material and methods. Results
Discussion and bibliography.
Types of publications: Poster, communications and conferences.
Types of publications: Review articles.
Types of publications: Articles of clinical cases.
Norms for the publication of scientific articles in biomedical journals.
Types of publications: Research articles, visual expression of results, tables and graphs; rules.
Doctoral thesis.
Types of publications: Master's final project.

4. ODONTOMETRICS AND MORPHOMETRICS

Evolution from Traditional Methods in 2D to Digital Methods in 3D.
CBCT applications in dentistry and research. Treatment of CBCT images and files with different computer programs.
3D craniofacial analysis using CBCT technology and three-dimensional facial cameras. Dosimetry and CBCT considerations.

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Laboratory practices	37,50	100
Seminars	22,50	100
Theory classes	15,00	100
Tutorials	7,00	100
Other activities	3,00	100
Development of group work	40,00	0
Development of individual work	40,00	0
Study and independent work	100,00	0
Readings supplementary material	70,00	0
Resolution of case studies	40,00	0
TOTAL	375,00	

TEACHING METHODOLOGY

The methodology will be: magisterial classes with support of projectors with presentations type power-point, practical classes with computers and diverse devices, classes of laboratory, as well as individual works and in group.

EVALUATION

The final grade for the course will be obtained with the weighted average, according to its theoretical-practical load, of each of the four modules that make up the course. In order to access the weighted average grade, the passing grade must be obtained (minimum 5 points out of 10) in each of the modules, independently.

A) Module for the Use and Optimization of Bibliographic Resources (for an assessment of 10 points), weighting 20%: assessment of attendance at theoretical classes as well as the participatory attitude, together with the assessment of the proposed works, together with a written exam on the contents of the module.

B) Evidence-Based Dentistry Module (for an assessment of 10 points), 35% weighting: assessment of the attendance to theoretical classes as well as the participatory attitude, together with the assessment of the proposed works, together with a written exam on the contents of the module.

C) Module of Scientific Communication in Dentistry (for an assessment of 10 points), 30% weighting: assessment of the attendance to theoretical classes as well as the participatory attitude, together with the assessment of the proposed works, together with a written exam on the module contents.



D) Module of Odontometry and Morphometry (for evaluation of 10 points), weighting 15%: evaluation of attendance at theoretical classes as well as participatory attitude, together with the evaluation of the proposed works, together with a written exam on the contents of the module.

REFERENCES

Basic

- Critical Thinking. Understanding and evaluating dental research. Donald Maxwell Brunette. Ed. Quintessence Books (2007)
- Evidence-Based Dentistry. An introduction. Allan Hackshaw, Elisabeth Paul, Elisabeth Davenport. Ed. Blackwell Munksgaard (2006)
- Publicación científica biomédica. Cómo escribir y publicar un artículo de investigación. Jimenez Villa j. et al. Ed. Elsevier (2010).
- Trisha Greenhalgh. Cómo leer un artículo científico: Las bases de la medicina basada en la evidencia. 5ed. ELSEVIER (2015).
- Francisco Faus y Elena Santainés. Búsquedas bibliográficas en bases de datos. Primeros pasos en investigación en ciencias de la salud. Elsevier (2013).

Additional

- María Isabel Orts Cortés. Práctica basada en la evidencia. Colección cuidados de salud avanzados. Elsevier (2015).
- Loreto Maciá Soler. Práctica basada en la evidencia. Colección de cuidados de salud avanzados. Elsevier (2014).