

29320 - Dental Radiology

Syllabus Information

Academic Year: 2020/21

Subject: 29320 - Dental Radiology

Faculty / School: 229 - Facultad de Ciencias de la Salud y del Deporte

Degree: 442 - Degree in Odontology

ECTS: 6.0

Year: 2

Semester: Second semester

Subject Type: Compulsory

Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as theory sessions, workshops, problem-solving, visits, and autonomous work and study.

4.2.Learning tasks

This course is organized as follows:

- **Theory sessions.** Interactive teaching, eminently practical, encouraging student participation during the lecture. The theoretical knowledge will enable the student assessment of the indications, advantages, disadvantages, and contraindications of the different imaging formation techniques, as well as the legal framework for its use.
- **Workshops** oriented to problem-solving, case studies, carried out in groups. Radiological cases (X-ray viewer). The workshops will allow to apply theoretical knowledge for the resolution and interpretation of different practical cases as well as performing the radiographic examinations required in dental practice.
- **Visits** to hospitals to display performance of CT, MRI and orthopantomography.
- **Autonomous work and study.**

4.3.Syllabus

This course will address the following topics:

Introduction

- 1 Concept of Diagnostic Imaging. Modalities to obtain diagnostic imaging, historical sketch, development and evolution to the present day. Bases and mechanisms for obtaining an image
- 2 Concepts and general principles: electromagnetic and ionizing radiation.
- 3 Conventional Radiology and tomodensitometry. Physical principles, specific features.
- 4 Ultrasound and MRI. Physical principles, particularities.
- 5 The radiological technique, basic principles: Orthopantomography and intraoral radiography.

Radiation protection

- 7 Integration of the oral cavity and dental structures in the area of ??head and neck I
- 8 Integration the oral cavity and dental structures in the area of ??head and neck II
- 9 Integration of the oral cavity and dental structures in the area of ??head and neck III

Radiological semiology and Radiopathology

- 10 Intraoral radiography and orthopantomography. Basic semiology.
- 11 Intraoral radiography and orthopantomography. Major syndromes.
- 12 Dentascan. Basic principles.
- 13 Dentascan. Semiology and radiopathology.

Temporomandibular joint

- 14 Anatomical particularities. Diagnostic Imaging: conventional Radiology and tomodensitometry.
- 15 MRI. Radiological anatomy and semiological criteria.
- 16 MRI. Major syndromes.

4.4.Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates (<https://fccsyd.unizar.es/academico/horarios-y-calendarios>) and other details regarding this course will be provided on the first day of class or please refer to the Faculty of Health and Sports Sciences website and Moodle.

Given the exceptional situation for this 2020/21 academic year, the way of carrying out the different learning tasks depends on the availability of physical spaces in the Center. Therefore, if necessary, the online format will be used, that is to say, in a synchronic telematic system, by which teachers and students will be connected through technologies that allow interaction, such as Google Meet both for tutoring, upon request by appointment via email electronic, as for the theoretical and practical classes that consist of the presentation of different radiological cases with the projection of images and reading of cases. All of them oriented to the visualization of images to know the different imaging techniques, projections and plans, as well as familiarization with radiological semiology to reach the appropriate diagnosis.

4.5.Bibliography and recommended resources

- Basic bibliography:
 - Radiología esencial / [directores] J. L. del Cura, S. Pedraza, A. Gayete Buenos Aires ; Madrid : Editorial Médica Panamericana, D.L. 2009
 - Radiología Oral Principios e interpretación. S.C White; M.J Pharoah. Elsevier Science. Nº Edición: 4/2002
- Complementary bibliography
 - Radiología ortopédica y radiología dental : una guía práctica / coordinadores, Francisco M. Tardáliga Montero, José Luis del Cura RodríguezBuenos Aires ; Madrid : Editorial Médica Panamericana : Sociedad Española de Radiología Médica, cop. 2005
 - Ros Mendoza L.H., Cañete Celestino E., Velilla Marco O.. Resonancia magnética de la articulación temporomandibular Radiología : Boletín de la Sociedad Española de Radiología y Electrología Médica y de Medicina Nuclear , 2008; 50: 377-385