

29314 - "Head and Neck Morphology; Stomatognathic System Physiology"

Syllabus Information

Academic Year: 2019/20

Subject: 29314 - "Head and Neck Morphology; Stomatognathic System Physiology"

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

Degree: 442 - Degree in Odontology

ECTS: 6.0

Year: 2

Semester: First semester

Subject Type: Basic Education

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 learning process designed for this course follows an orderly step-wise process, so that the course starts with the study of basic and integration concepts which are mainly worked through **lectures**, then it introduces the student to develop skills involving procedural, integration and understanding skills of the applications of the subject to be worked through various activities in small groups in **practical sessions**.

To better track the learning process students will be encouraged to use the **tutoring/office hours** through various systems and methods: conventional tutoring or more specific assistance related to practical work.

Communications, announcements, and supplementary materials will be provided via Moodle in the **Anillo Digital Docente** (intranet ADD).

4.2.Learning tasks

Participatory lectures: basic concepts of the subject are showed, directing students towards the acquisition of skills and learning outcomes. Audiovisual support material will be used and students could find it in the intranet ADD. During these activities, students will be encouraged to be participatory and dynamic. This activity occupies 4 ECTS, 40 hours in the lecture room.

Practical sessions occupying 2 ECTS, 20 hours spread over six sessions of 2 hours including:

a) Anatomy practices: Head, Neck, masticatory apparatus, teeth.

b) Laboratory sessions: students will have the opportunity to perform functional examinations of the main physiological processes related to the program.

All students will be informed about the risks that may have the realization of the practices of this subject, and if dangerous products are handled, and what to do in case of accident. To perform them is compulsory to sign a commitment to comply with lab standards and safety. It is the student's responsibility to be aware of all such issues and act in an extremely cautious manner to avoid any potential causes for accidents in the laboratory. For more information, see the information for students of the Occupational Health and Safety Unit: <http://uprl.unizar.es/estudiantes.html>

Before each session, students will have available the protocol of the practice. At the end of it, students submit to the teacher a laboratory assignment with answers to questions about the practice performed and the results obtained. Along with the degree of participation and teamwork done, this assignment will grade this part of the course.

Tutorials: both individual and grouped, for guidance in the teaching-learning of the subject.

Personal Study: From all other activities, students should be responsible for creating diagrams and structured work programs.

4.3.Syllabus

Topics related to Anatomy:

- 1- Bone structures of the head and craniofacial Pits and mucous membranes.
- 2- Clinical anatomy of the temporomandibular joint
- 3- Neuromuscular systems head and neck
- 4- Salivary glands and visceral structures of the head and neck
- 5- Sensory nerves / Cranial nerves
- 6- Neurovascular bundle head and neck
- 7- Topographic anatomy of head and neck
- 8- Dental Morphology

Topics related to physiology of stomatognathic apparatus:

- 1.- Introduction and global vision of the physiology of the stomatognathic apparatus. Oral mucosa.
- 2.- Saliva. Salivation control.
- 3.- Mastication and dynamic occlusion.
- 4.- Temporomandibular joint physiology.
- 5.- Deglutition.
- 6.- Speech, phonation and language articulation.
- 7.- Sensory functions: taste and smell.
- 8.- Sensory functions: proprioceptive sensitivity, mechanosensation (somatoesthesia and Touch)
- 9.- Sensory functions: temperature sensation.
- 10.- Sensory functions: nociception, orofacial pain.
- 11.- primary teeth vs permanent teeth.
- 12.- Tooth physiology: enamel and dentin-pulp complex.
- 13.- Periodontium: cementum, periodontal ligament, alveolar bone.
- 14.- Periodontium: gingiva.
- 15.- Bone physiology and phosphocalcic metabolism.
- 16.- Immune system in the stomatognathic apparatus.

4.4.Course planning and calendar

The theoretical lectures will begin the first day of class assigned to the theoretical teaching of the subject. In this first day of class it will also be communicated practices, seminars dates and tutored project deadline, according to the academic calendar. Those dates will be posted on the official Faculty or Departmental notice boards.

4.5. Bibliography and recommended resources

- BB. Ediciones UNIZAR. Morfología dental. Jaime Whyte y colaboradores. 2016
- BB. Velayos, José Luis. Anatomía de la cabeza con enfoque odontoestomatológico / José Luis Velayos ; con ilustraciones de Humberto Díaz Santana. . 3ª ed., 1º reimp. Madrid : Editorial Médica Panamericana, 2005.
- BC. Moore, Keith L. Anatomía con orientación clínica / Keith L. Moore, Arthur F. Dalley II, Anne M. R. Agur . 6ª ed. Barcelona [etc.] : Wolters Kluwer : Lippincott Williams & Wilkins, cop. 2010
- BC. Barrios M., Gustavo. Odontología : su fundamento biológico / Gustavo Barrios M. . Bogotá : latros, cop. 1993
- BC. Nelson, Stanley J.. Anatomía, fisiología y oclusión dental / Stanley J. Nelson, Major M. Ash . 9a. ed. Madrid [etc.] : Elsevier, D.L. 2010.
- BB. Clinical oral physiology. Timothy S. Miles, Birgitte Nauntofte, Peter Svensson . Copenhagen [etc.] : Quintessence, 2004
- BB. Histología, embriología e ingeniería tisular bucodental. M.E. Gómez de Ferraris, A Campos Muñoz. Ed. Panamericana. 2009.
- BC. Okeson, Jeffrey P.. Dolor orofacial según Bell : tratamiento clínico del dolor orofacial / Jeffrey P. Okeson . 6a ed Barcelona [etc.] : Quintessence, 2008
- BC. Tooth wear and sensitivity : clinical advances in restorative dentistry / edited by Martin Addy ... [et al.] . London : Martin Dunitz, cop. 2000
- BC. Galgut, Peter N.. Periodontics : current concepts ant treatment strategies / Peter N Galgut, Sherie A Dowsett, Michael J Kowolik . London : Martin Dunitz, 2001
- BC. Fisiología humana / [director], Jesús A. Fernández Tresguerres, [coordinadores], Carmen Ariznavarreta Ruiz ... [et al.] . 4ª ed. México ; Madrid [etc.] : McGraw-Hill, cop. 2010
- BC. Hall, John E.. Tratado de fisiología médica / John E. Hall, Arthur C. Guyton. 12ª ed. Barcelona [etc.] : Elsevier, D.L. 2011
- BC. Schünke, Michael. Prometheus : texto y atlas de anatomía. Vol. 3, Cabeza y neuroanatomía / Michael Schünke, Erick Schulte, Udo Schumacher ; con la colaboración de Jürgen Rude ; ilustrado por Markus Voll, Karl Wesker . 1ª ed., 2ª reimp. Madrid [etc.] : Editorial Médica Panamericana, 2008
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- BB. Atlas de anatomía humana Sobotta. Vol. 1, Cabeza, cuello , miembro superior / Directores: R. Putz y R. Pabst, con la colaboración de Renate Putz. 22ª ed., 3ª reimp. Madrid [etc.] : Editorial Médica Panamericana, 2010
- BC. Snell, Richard S. Neuroanatomía clínica / Richard S. Snell . 7ª ed. Barcelona : Wolters Kluwer : Lippincott Williams & Wilkins, cop. 2010
- BC. Nervios craneales : en la salud y en la enfermedad / Linda Wilson-Pauwels, Elizabeth J. Akesson, Patricia A. Stewart, Sian D. Spacey . [1a ed. en español traducida de la] 2a ed. inglesa Buenos Aires [etc.] : Médica Panamericana, 2003
- BC. Atlas de los sistemas neuromusculares : con funciones musculares estáticas y dinámicas / Víctor Manuel Smith- Fernández ... [et al.] . 2ª ed. Barcelona : Espaxs, cop. 2003
- BC. Netter, Frank H.. Atlas de anatomía humana / Frank H. Netter . 5ª ed. Ámsterdam ; Barcelona ; Madrid [etc.] : Elsevier Masson , 2011
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