COURSE DATA

DATA SUBJECT

Code: 34731
Name: Orofacial sensitivity
Cycle: Undergraduate Studies
ECTS Credits: 4.5
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1206 - Degree in Dentistry	Facultat de Medicina i Odontologia	2	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1206 - Degree in Dentistry	Orofacial sensitivity	ELECTIVES

COORDINATION

BORRAS BLASCO CONSUELO

OLASO GONZALEZ GLORIA

SUMMARY

The subject describes the physiology of the different sensory organs of the human body as well as the knowledge of the nervous system, pain and analgesia. The last topics are dedicated to the study of the physiology of the eruption of the periodontium from chewing and from occlusion.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

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Conocer el periodonto y los receptores periodontales.

odontosensi10 Describir los mecanismos de la oclusión.

odontosensi1 Describir las carácterísticas de la conducción nerviosa

odontosensi2Conocer las funciones motora y sensorial de la corteza

odontosensi3Conocer la sensibilidad mecanorreceptora y térmica

odontosensi4 Describir las funciones de los diferentes sentidos

odontosensi5 Conocer los mecanismos de producción de dolor

odontosensi6 Conocer y describir el dolor referido y los mecanismos de la analgesia

odontosensi8 Sensibilidad en los procesos de erupción dentaria

odontosensi9 Conocer la masticación.

DESCRIPTION OF CONTENTS

1. THEORY

1. Resting potential
2. Action potential
3. Physiology of nerve fibers
4. General physiology of synapses
5. Skeletal muscle
6. Smooth muscle
7. Sensory receptor
8. Somatic senses
9. Autonomic nervous system
10. Vision
11. Audition
12. Chemical senses: Taste and smell
13. Salivation
14. Body temperature
15. Physiology of somatic sensitivity: Orofacial sensitivity
16. Physiology of somatic sensitivity: Somatic senses for pain and temperature
17. Physiology of spinal reflexes
18. Muscle tone
19. Mechanisms regulating postural activity
20. Control of voluntary movement
21. Wakefulness and sleep activity
22. Instinctive behavior and emotions

23. Higher nervous functions: Memory, learning, and language

2. PRACTICES

a. Study of nerve impulse conduction
b. Study of mechanoreceptor and thermal sensitivity
c. Examination of the motor system: Tone, Muscle strength, Deep and cutaneous reflexes, and Coordination

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	32,00
Laboratory	11,00
Computer classroom practice	2,00
Total hours	**45,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	40,00
Preparation of lessons	12,00
Preparation for assessment activities	11,00
Resolution of case studies	0,00
Total hours	**63,00**

TEACHING METHODOLOGY

The course will employ a combination of strategies to promote active, meaningful learning adapted to the diverse content of the subject.

- **Lectures**: These will be used for the structured presentation of core theoretical content. Through these sessions, students will acquire the conceptual knowledge necessary to understand the physiological mechanisms of the nervous system.

- **Laboratory sessions**: Students will carry out practical activities focused on the functional exploration of the sensory and motor nervous system. These sessions aim to consolidate theoretical knowledge and develop basic skills for neurophysiological examination.

- **Computer-based practicals**: Through interactive simulations, students will explore the factors that influence cellular excitability. This approach supports the understanding of dynamic and abstract concepts through virtual experimentation.

- **Use of comics as an innovative teaching tool**: Comics will be used as a visual and narrative resource to help students better understand complex physiological concepts. This strategy enhances conceptual memory and contextualizes abstract processes through storytelling.

- **Problem-Based Learning (PBL)**: Comics will also be used to present practical cases that require students to apply their theoretical and practical knowledge to find solutions. This methodology encourages critical thinking, teamwork, problem-solving, and the integration of interdisciplinary content.

- **A gender perspective, respect for diversity, and the Sustainable Development Goals (SDGs) will be incorporated into teaching whenever possible.**

EVALUATION

Written exam: Students will complete a written test consisting of 9 short-answer questions (8 on theoretical content and 1 on the practical component of the subject).

Practical assessment: The practical part of the course will be evaluated through graded deliverable activities related to the practical sessions. This will account for 10% of the final grade.

In order to be eligible for the early exam session for this subject, students must have completed all practical sessions satisfactorily.

Attendance at practical activities is mandatory. A student will be considered to have met this requirement if they have attended at least 80% of the sessions and have adequately justified the inability to attend the remaining ones due to force majeure. Fulfilling this requirement is essential to pass the course.

Students are reminded of the importance of completing the teaching evaluation surveys for all instructors involved in this subject.

REFERENCES

BASIC

- Guyton AC, Hall JE.Tratado de Fisiología Médica.Ed. Mac Graw-Hill
- Ganong WF. Fisiología Médica. Ed. Mc Graw-Hill
- Koeppen BM. Stanton BA. Berne y Levy Fisiología. Ed. Elsevier.

COMPLEMENTARY

- Constanzo LS. Fisiología. Ed. Elsevier
- Conti F. Fisiología Médica. Ed. Mc Graw-Hill
- Fox SL. Fisiología Humana. Ed. Mc Graw-Hill

e-Health Resources

- ClinicalKey Student Medicina, Odontologia y Enfermería [https://uv-es.libguides.com/RecursosSalut]
- Acces Medicina [https://uv-es.libguides.com/Access_Medicina]
- Médica Panamericana [https://uv-es.libguides.com/Medica_Panamericana]