

1. BASIC INFORMATION

Course	Anatomy of the Head and the Neck
Degree program	Odontology
School	Biomedical Science
Year	Second
ECTS	6 ECTS
Credit type	Basic
Language(s)	English, Spanish
Delivery mode	Presential
Semester	First
Academic year	2024/2025
Coordinating professor	Cristina Albarrán Nogales
Professor	Sarah Esther Díaz Oliva, Jesús Merchán Rubira

2. PRESENTATION

In line with one of the goals of the university such as training professionals in the field of dentistry, the future dentist must know the Anatomy of the Head and Neck structures in depth, its morphology, location according to the patterns and the anatomical relationships that exist between them, with special emphasis on structures related to the oral cavity. This knowledge will allow the student in the future to understand the alterations and pathologies that develop in the oral area.

3. COMPETENCIES AND LEARNING OUTCOMES

Core competencies (CC):

- **CC1.** That students have demonstrated to possess and understand knowledge in an area of study that starts from the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that imply knowledge coming from the vanguard of his field of study.
- **CC3.** That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant issues of social, scientific, or ethical nature.
- **CC5.** That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

Cross-curricular competencies (C-CC):

- **C-CC1. Autonomous learning.** Process that allows the person to be the author of their own development, choosing the paths, the strategies, the tools, and the moments that they consider most

effective to learn and independently implement what they have learned. The autonomous student, in short, selects the best strategies to achieve their learning objectives.

- **C-CC6. Oral / Written Communications.** Communication is the process by which we transmit and receive data, ideas, opinions, and attitudes to achieve understanding and action. It can be oral, that is done through words and gestures, and / or written, through writing and / or graphic support.
- **C-CC12. Critical reasoning.** Ability to analyze an idea, phenomenon or situation from different perspectives and assume before him / her a personal approach, built from the rigor and objectivity argued, and not from intuition.

General Competencies (GC):

- **GC7.** Promote autonomous learning of new knowledge and techniques, as well as motivation for quality.
- **GC11.** Understand the basic biomedical sciences on which Dentistry is based to ensure correct oral care.
- **GC18.** Know, critically assess, and know how to use the sources of clinical and biomedical information to obtain, organize, interpret, and communicate scientific and health information.
- **GC19.** To understand the scientific method and have the critical capacity to assess established knowledge and novel information. To be able to formulate hypotheses, collect and critically evaluate information to solve problems, following the scientific method.

Specific competencies (SC):

- **SC1.** Know the biomedical sciences on which Dentistry is based to ensure correct oral-dental care. Among these sciences, appropriate contents of Embryology, Anatomy, Histology, and Physiology of the human body have to be included.
- **SC4.** To know the morphology and function of the stomatognathic system, including appropriate contents of specific embryology, anatomy, histology, and physiology.

Learning outcomes (LO):

- **LO1:** To understand and manage the general concepts of osteology and myology with clinical-therapeutic orientation.
- **LO2:** To know and understand the arterial, venous, and lymphatic systems of the head and neck, with clinical-therapeutic orientation.
- **LO3:** To determine the specific morphology of each human tooth.

The following table shows the relationship between the competencies developed during the course and the learning outcomes pursued:

Competencies	Learning outcomes
CC1, CC3, CC5, C-CC1, C-CC6, C-CC12, GC7	LO1: To understand and manage the general concepts of osteology and myology with clinical-therapeutic orientation.
GC12, GC18, GC19	LO2: To know and understand the arterial, venous, and lymphatic systems of the head and neck, with clinical-therapeutic orientation.
SC1, SC4	LO3: To determine the specific morphology of each human tooth.

4. CONTENT

The subject is organized into five Thematic Blocks/Sections, which, in turn, are divided into specific units:

Block 1. Dental anatomy.

- Unit 1: Introduction to the dental anatomy ([Digital Block](#)).
- Unit 2: Incisors and canines.
- Unit 3: Premolars.
- Unit 4: Molars.

Block 2. General concepts of human anatomy and osteology of the skull.

- Unit 5: Basic anatomical nomenclature and General osteology of the skull ([Digital Block](#)).
- Unit 6: Cranial and facial bones I.
- Unit 7: Cranial and facial bones II.
- Unit 8: Cranial and facial bones III ([Digital Block](#)).
- Unit 9: TMJ-related fossae and cavities.
- Unit 10: Cranial fossae and cavities ([Digital Block](#)).
- Unit 11: Anatomy of the mandible and temporomandibular joint.

Block 3. Myology of the head and the neck.

- Unit 12: Muscles of the head and neck I. Derived from first branchial arch.
- Unit 13: Muscles of the head and neck II. Derived from second branchial arch.
- Unit 14: Muscles of the head and neck III. Muscles of the tongue ([Digital Block](#)).
- Unit 15: Muscles of the head and neck IV. Muscles of the floor of the mouth, triangles of the neck, and fasciae.

Block 4. Angiology of the head and the neck.

- Unit 16: Vasculature of the head I. Internal carotid artery ([Digital Block](#)).
- Unit 17: Vasculature of the head II. External carotid artery.
- Unit 18: Vasculature of the head III. Venous and lymphatic drainage.

Block 5. Organs associated to the head and the neck.

- Unit 19: Anatomy of the pharynx.
- Unit 20: Anatomy of the larynx.

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- Master lectures
- Study and autonomous work
- Case analysis
- Tutorials
- Cooperative learning

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Learning activity	Number of hours
Master lectures	43
Virtual asynchronous master lectures	10
Lab practices	8
Cases analyses	7
Practical exercises	7.5
Tutorials	5
Study and autonomous work	67
Knowledge tests	2.5
TOTAL	150

7. ASSESSMENT

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

Assessment system	Weight
Quantifiable demonstration of theoretical knowledge and assimilation and integration of that learning	70 %
Demonstrate the knowledge and skills worked during the experiments conducted in the laboratory	30 %

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

7.1. First exam period

To pass the subject in the Ordinary exam period **a grade greater than or equal to 5.0 out of 10.0 in the theoretical objective assessment, or assessments**, must be obtained, **contributing**, together with the grade obtained in the Digital Block Activities, **to 70 % of the final grade**. For its part, **a grade greater than or equal to 5.0 over 10.0 in the average of the practical classes** must be obtained, **contributing to the remaining 30 % of the final grade**.

- These general criteria (including the dates of practical classes or any other evaluable test) will be subject to modifications by the teaching staff (when appropriate) due to academic calendar, laboratory or classroom availability and the possible occurrence of incidents that affect the normal development of the subject.

7.2. Second exam period

In order to pass the subject in extraordinary session, the student **must examine all pending parts that have not been passed**, whether theoretical and/or practical. The test of evaluation of theoretical knowledge, as well as the practical part, will be **similar (but not necessarily equal)** to those made in the ordinary call. In relation to the practical part there will be a single evaluable test that encompasses the

set of all the practices. This practical part may be recovered either during the follow-up period, or during the extraordinary session; said moment will be determined by the teachers.

8. SCHEDULE

This table shows the delivery deadline for each assessable activity in the course:

Assessable activities	Deadline
Activity 1. Digital Block Activity 1	Week 3
Activity 2. Digital Block Activity 2	Week 4
Activity 3. Practical Class 1: Dental anatomy	Week 5
Activity 4: First midterm	Week 6
Activity 5. Digital Block Activity 3	Week 7
Activity 6. Practical Class 2: Osteology	Week 8
Activity 7. Digital Block Activity 4	Week 10
Activity 8. Digital Block Activity 5	Week 11
Activity 9. Digital Block Activity 6	Weeks 12
Activity 10. Practical Class 3: Prosection: Myology and Angiology	Week 13-14
Activity 11. Practical Class 4: Integrated Activity: Osteology, Myology, Angiology, Pharynx, and Larynx	Week 15
Activity 12. Final theoretical assessment	Week 17-18

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any change as and when appropriate.

9. BIBLIOGRAPHY

Here is the recommended bibliography:

- Drake Richard, Vogl A. Wayne and Mitchell Adam W. M. *Gray. Anatomía para estudiantes*. 3ª ed. Elsevier. ISBN: 9788490228425.
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- Neil S. Norton. Netter. *Anatomía de cabeza y cuello para Odontólogos*. 2ª ed. Elsevier. ISBN: 9788445821275.
- Nelson Stanley J., Ash Major M. *WHEELER. Anatomía, fisiología y oclusión dental*. 9ª ed. Elsevier. ISBN: 9788480866903.

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- Nielsen Mark, Miller Shawn. *Atlas de Anatomía Humana*. Médica Panamericana. ISBN: 9788498354973.
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- Ovalle W. K., Nahirney P. C. *Netter's essential histology*. Saunders/Elsevier. ISBN: 9781929007868.
- Paulsen Friedrich and Waschke Jens. *Sobotta. Atlas de anatomía humana*. Elsevier. ISBN: 9788480868747.
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- Roehn Johannes W., Yokochi Chihiro, Lütjen-Drexcoll Elke. *Anatomy: a photographic atlas*. Schattauer. ISBN: 9781496308702.
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- Schünke Michael, Schulte Erik, Schumacher Udo. *Colección Prometheus. Texto y Atlas de Anatomía*. Panamericana. EAN: 9788498358933.
- Schünke Michael, Schulte Erik, Schumacher Udo. *Prometheus. Texto y Atlas de Anatomía. Cabeza, cuello y neuroanatomía. Tomo III*. 3ª ed. Panamericana. ISBN: 9788498357646.
- Standring S. (editor in chief). *Gray's anatomy: the anatomical basis of clinical practice*. 39ª ed. Elsevier Churchill Livingstone. ISBN: 0443071683.
- Stevens A., Lowe J. S. *Human histology*. 3rd ed. Elsevier/Mosby. ISBN: 0323036635.
- Tortora Gerard J., Derrickson Bryan. *Principles of anatomy and physiology*. 13th ed. Willey. ISBN: 9780470646083.
- Tortora Gerard J., Derrickson Bryan. *Principios de Anatomía y Fisiología*. 13ª ed. 1ª reimp. Médica Panamericana. ISBN: 9786077743781.
- Velayos, JL. *Anatomía de la cabeza: para odontólogos*. 4a. ed., 2a reimp. ISBN: 9788498350685.
- Williams Peter L., et al. *Anatomía de Gray: bases anatómicas de la medicina y la cirugía*. 38ª ed. Harcourt. ISBN: 8481743844.

AUDIOVISUAL MEDIA:

- Human anatomy (Aclands). Lippincott, Williams & Wildins. 2003. Wolters Kluwer Company
- INTERESTING WEBSITES:
 - ✓ http://www.med.umich.edu/lrc/coursepages/m1/anatomy2010/html/courseinfo/labs_systemic.html
 - ✓ <http://dicciomed.eusal.es/>
 - ✓ <https://anatomylearning.com>
 - ✓ <http://biblioteca.uem.es/>

10. DIVERSITY MANAGEMENT UNIT

Students with specific learning support needs:

- ❖ Curricular adaptations and adjustments for students with specific learning support needs, in order to guarantee equal opportunities, will be overseen by the Diversity Management Unit (UAD: Unidad de Atención a la Diversidad).
- ❖ It is compulsory for this Unit to issue a curricular adaptation/adjustment report, and therefore students with specific learning support needs should contact the Unit at unidad.diversidad@universidadeuropea.es at the beginning of each semester.

11. ONLINE SURVEYS

Your opinion matters!

The Universidad Europea encourages you to participate in the **Satisfaction Surveys** which help identify the strengths and areas we need to improve regarding professors, degree programs and the teaching-learning process.

The surveys will be made available in the “Satisfaction surveys” section in virtual campus or via e-mail.

Your assessment is necessary for us to improve.

Thank you very much for your participation!