

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

Code	34711
Name	Surgical pathology
Cycle	Grade
ECTS Credits	6.0
Academic year	2017 - 2018

Study (s)

Degree	Center	Acad. year	Period
1206 - Degree in Dentistry	Faculty of Medicine and Odontology	2	Second term

Subject-matter

Degree	Subject-matter	Character
1206 - Degree in Dentistry	14 - Surgical pathology	Obligatory

Coordination

Name	Department
ESPI MACIAS, ALEJANDRO	40 - Surgery
GARCIA BOTELLO, STEPHANIE ANNE	40 - Surgery
PINAZO DURAN, MARIA DOLORES	40 - Surgery

SUMMARY

Surgical pathology is a discipline in the undergraduate training of Medicine and Dentistry, which mainly includes the study of pathological processes that require surgical therapy, and the complications that may arise as a result of this therapy as well.

The course is taught in the second semester of the second degree course of Dentistry, and includes an essential and extensive study of the fundamentals of surgical pathology, which can be generalized to any area of specialty, and therefore gather the basics of Surgery in the core curriculum. It is therefore a discipline indispensable in the formation of the dentist because his activity continually address specific problems to the surgical field, and knowledge of the scientific and technical aspects of handling them is crucial for professional dealing with an adequate scientific basis.



It is required for a good education a sufficient knowledge of the morphological and physiological sciences, enabling the necessary understanding of the pathogenic and pathophysiological mechanisms, as well as the establishment of the diagnostic process and therapeutic indications.

It also includes finally a limited knowledge in some specific aspects of two specialties, which occasionally may be of interest in the field of dentistry, which are the otorhinolaryngology and ophthalmology. Without the aim of developing a full training in any of them, it is intended to give basic information about both specialties and some specific topics of interest to the dentist.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

It must have passed the basic subjects of Health Sciences

OUTCOMES

1206 - Degree in Dentistry

- Conocer de los procesos generales de la enfermedad, entre los que se incluyen la infección, la inflamación, las alteraciones del sistema inmune, la degeneración, la neoplasia, las alteraciones metabólicas y los desórdenes genéticos.
- Estar familiarizado con las características patológicas generales de las enfermedades y trastornos que afectan a los sistemas orgánicos, específicamente aquellas que tienen repercusión bucal.
- Conocer, valorar críticamente y saber utilizar las fuentes de información clínica y biomédica para obtener, organizar, interpretar y comunicar la información científica y sanitaria.
- Conocer del método científico y tener capacidad crítica para valorar los conocimientos establecidos y la información novedosa. Ser capaz de formular hipótesis, recolectar y valorar de forma crítica la información para la resolución de problemas, siguiendo el método científico.
- Conocer las ciencias biomédicas en las que se fundamenta la Odontología para asegurar una correcta asistencia buco-dentaria. Entre estas ciencias deben incluirse contenidos apropiados de:
Embriología, anatomía, histología y fisiología del cuerpo humano.
Genética, Bioquímica, Biología celular y molecular
Microbiología e inmunología
- Conocer la morfología y función del aparato estomatognático, incluyéndose contenidos apropiados de embriología, anatomía, histología y fisiología específicos.



LEARNING OUTCOMES

- To promote autonomous learning of new knowledge and techniques as well as the motivation for quality.
- To learn to share information with other health professionals and teamwork.
- To understand basic biomedical sciences of dentistry to ensure proper oral-dental care.
- To learn about the general processes of disease, which include infection, inflammation, immune system disorders, degeneration, neoplasia, metabolic and genetic disorders.
- To be familiar with general pathological features of diseases and disorders that affect organ systems, specifically those that impact on the mouth area.
- To understand the mechanisms of action, indications and efficacy of drugs and other therapeutic interventions, knowing their contraindications, interactions, and systemic effects on other organs, based on the available scientific evidence.
- To obtain and develop medical records that contain all relevant information.
- To reach ability to formulate an initial diagnosis and establish a rational diagnostic strategy, being competent in recognizing situations that require urgent dental care.
- To be able to establish a diagnosis, prognosis and treatment planning adequate in all clinical areas of dentistry, being competent in the diagnosis, prognosis and treatment plan development of the dental patient who requires special care, including medically compromised patients (such as diabetics, hypertensive patients, immunocompromised, anticoagulated, etc.) and patients with disabilities.
- To recognize life-threatening situations and be able to perform basic life support maneuvers.
- To know and apply basic treatment to the common dental diseases in patients of all ages. Therapeutic procedures should be based on the concept of minimal invasion and in a holistic and integrated dental treatment.

DESCRIPTION OF CONTENTS

1. Scientific fundamentals of Surgery

- 1.- Trauma: Generalities. Bruises. General survey of the injury.
Modificaci3n: Wound Healing
- 2.- Trauma: Generalities. Bruises. General survey of the injury.
- 3.- General treatment of wounds.
- 4.- Scarring. Grafts and skin flaps.
- 5.- Endocrine and metabolic response to traumatic injury.
- 6.- Malnutrition in surgery
- 7.- Traumatic Shock: Definition, etiology and pathophysiology.
- 8.- Traumatic Shock: Diagnosis and treatment.
- 9.- Thermal, nervous and vascular injuries.



- 10.- Local infection: Abscess and phlegmon. Regional infection: lymphadenitis and adenitis.
- 11.- Anaerobic infection. Tetanus.
- 12.- General infection. Septic shock.
13. Asepsis and antisepsis.
- 14.- Fundamentals of dental surgery.
- 15.- Fundamentals of transplant surgery.
- 16.- Pathology of the maxillary sinus.
17. Snoring and sleep apnea.
- 18.- Vertigo
19. Muscle surgery foundations: assessment and importance of muscle power. Muscular atrophy: classification and diagnosis. Muscle breakage and hernia.
- 20.-Anatomophysiology and joint biomechanics. Osteoarthritis.
- 21.- Joint trauma: dislocation and sprain
- 22.- Skeletal infection: generalities. Acute and chronic osteomyelitis.
- 23.- Joint infection: acute arthritis.
- 24.- Bone tumours.
- 25.- General study of fractures mechanisms and classification.
- 26.- General study of fractures: clinical and diagnostic. Bone consolidation and complications.
- 27.- Fundamentals of treatment of fractures: Indications of treatment closed by reduction and immobilization.
- 28.- Fundamentals of treatment of fractures: Indications and fundamentals of osteosynthesis. Concept and types.

2. Ophthalmic pathology with special repercussion in the oral area

- 29.-Red and painful eye.
- 30.- Vision loss.

3. Surgery Seminars

1. Concept and development of Surgery.
2. Interactive study through clinical cases of the endocrine-metabolic response to traumatic aggression, trauma shock and surgical wounds.
3. Interactive study-review through clinical cases of local, regional and general infection, asepsis and antisepsis techniques, oncology and transplant surgery.
4. Interactive study-review through clinical cases of Otorhinolaryngology. Surgical techniques.
5. Interactive study-review using clinical cases of Traumatology and Orthopedics. Surgical techniques.

4. Ophthalmology Seminars

- 1.- Basic ophthalmic examination
- 2.- Basic surgical procedures in Ophthalmology

**5. Practicals in the Dry Lab**

1. Fundamentals of surgical history taking and examination.
2. Basic surgical techniques: Ligation and sutures.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	33,00	100
Classroom practices	15,00	100
Laboratory practices	12,00	100
Development of group work	5,00	0
Study and independent work	45,00	0
Readings supplementary material	10,00	0
Preparation of evaluation activities	15,00	0
Preparing lectures	10,00	0
Preparation of practical classes and problem	5,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

50% of the classroom hours will be devoted to theoretical teaching through the provision of lectures. It will provide students with the scheme, basic summary of the class, and the teacher also will try to stimulate the active participation of the students with frequent introduction of concrete examples of the issues.

45% of classroom time will be devoted to practical training. The activities will be distributed in large group seminars and also in small group laboratory practice.

Large group seminars will be devoted primarily to addressing specific problems and surgical cases, as well as the discussion of practical and technical aspects of surgery and the two specialties included, while the laboratory practices, developed in the form of workshops, will address the basic technical maneuvers of surgery. The staff will encourage student activity and contact with surgical tools and materials.

It will require personal work or group work of students in some specific aspects of the program, and for the implementation of these activities the use of *e-learning* systems and other ICT will be encouraged

EVALUATION



The assessment will be carried out according to the following criteria:

Final test of the knowledge acquired and resolution of questions. This test means 70% of the final mark. The test consists of 60 multiple-choice questions, in which every three failures, you lose a correct one, and another part in which you have to explain two questions (you can choose among 3 options). The first part means 60% of the mark and the second part 40%.

To take this test you will need to have completed the following assessment activities:

- Project development, individually or in groups, and explanation of the same in a seminar or at virtual classroom (15% of the final mark).
- Practical skills assessment achieved in practical laboratory activities (10% of the final mark)
- Attitude and attendance to practical training activities, and appropriate use of e-learning systems and other ICTs (5% of the final mark).

In order to access to an advance on the call of this subject, it is a requirement that the student has coursed with benefits all his/her practices.

REFERENCES

Basic

- TAMAMES ESCOBAR S, MARTINEZ RAMOS C. Cirugía. Fisiopatología general. Aspectos básicos. Manejo del paciente quirúrgico. Ed Panamericana, 1997.
- CHARLES BRUNICARDI F. Schwartz. Principios de Cirugía. Vol I. Ed Mc Graw-Hill Interamericana, 2005.

Additional

- MORERA PEREZ C, MARCO ALGARRA J. Lecciones de Otorrinolaringología aplicada. Ed Glosa, 2006.
- BONAFONTE S, BONAFONTE E. Esquemas clínico-visuales en Oftalmología. Ed Elsevier, 2006.