

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

|                      |   |
|----------------------|---|
| <b>Code</b>          | 34709                                     |
| <b>Name</b>          | General medical pathology and paediatrics |
| <b>Cycle</b>         | Grade                                     |
| <b>ECTS Credits</b>  | 9.0                                       |
| <b>Academic year</b> | 2023 - 2024                               |

**Study (s)**

| <b>Degree</b>              | <b>Center</b>                      | <b>Acad. year</b> | <b>Period</b> |
|----------------------------|------------------------------------|-------------------|---------------|
| 1206 - Degree in Dentistry | Faculty of Medicine and Odontology | 2                 | Annual        |

**Subject-matter**

| <b>Degree</b>              | <b>Subject-matter</b>                          | <b>Character</b> |
|----------------------------|--|------------------|
| 1206 - Degree in Dentistry | 12 - General medical pathology and paediatrics | Obligatory       |

**Coordination**

| <b>Name</b>                  | <b>Department</b>                            |
|------------------------------|--|
| BRETON MARTINEZ, JOSE RAFAEL | 290 - Pediatrics, Obstetrics and Gynaecology |
| COLOMER REVUELTA, JULIA      | 290 - Pediatrics, Obstetrics and Gynaecology |
| SERRA SANCHIS, BELEN         | 260 - Medicine                               |

**SUMMARY****CLINICAL MEDICINE:**

The main objective of Clinical Medicine is to provide a basic knowledge about how medical conditions can influence health and dental care. The subject is given a general overview of the causes, mechanisms, manifestations and general management of diseases, especially those that are more closely related to the practice of dentistry and oral health.

The students do not have to know in detail all the issues of Clinical Medicine, but rather to be able to identify the most relevant and common diseases, their complications and their relationship with dentistry.



## **PAEDIATRICS:**

The scheduled program, limited by the number of teaching hours assigned to it within the degree, includes a selection of general and basic paediatric topics, which all healthcare professionals should know. The program also covers more specific aspects of common diseases affecting the paediatric population and treated by the dentist, in particular those aspects, which require special attention.

## **PREVIOUS KNOWLEDGE**

### **Relationship to other subjects of the same degree**

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

### **Other requirements**

## **OUTCOMES**

### **1206 - Degree in Dentistry**

- Promover el aprendizaje de manera autónoma de nuevos conocimientos y técnicas, así como la motivación por la calidad.
- 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.
- Obtain and elaborate a clinical history with relevant information.
- Identificar el principal motivo de consulta y la historia de la enfermedad actual. Realizar una historia clínica general del paciente y una ficha clínica que refleje fielmente los registros del paciente.
- Identificar los signos y actitudes que sugieran la posible existencia de malos tratos.
- Conocer los procesos generales de enfermar, curar y reparar, entre los que se incluyen la infección, la inflamación, la hemorragia y la coagulación, la cicatrización, los traumatismos y las alteraciones del sistema inmune, la degeneración, la neoplasia, las alteraciones metabólicas y los desórdenes genéticos.



- Conocer las características patológicas generales de las enfermedades y trastornos que afectan a los sistemas orgánicos.
- Conocer las manifestaciones orales de las enfermedades sistémicas.
- Conocer la farmacología general y clínica en la práctica odontológica.
- Conocer y manejar las emergencias y urgencias médicas más frecuentes en la práctica odontológica y en las técnicas de reanimación cardiorrespiratoria básica.
- Tener conocimientos apropiados de nutrición humana, en particular, la relación de los hábitos nutricionales y de la dieta con el mantenimiento de la salud y la prevención de las enfermedades buco-dentales.
- Conocer los procedimientos y pruebas diagnósticas clínicas y de laboratorio, conocer su fiabilidad y validez diagnóstica y ser competente en la interpretación de sus resultados.

## LEARNING OUTCOMES

### CLINICAL MEDICINE:

The student should be able to identify certain diseases based on the patient's medical history, the physical examination and the laboratory tests. Those medical problems, which can affect dental health, must be registered accordingly. The student should be able to orientate the diagnosis and suggest a treatment for each problem. This subject will enable the students to communicate properly with other health care professionals, get appropriate medical information from books, journals or electronic resources, and to correctly use the medical language. In the end, they will be able to seek relevant information from diverse medical databases and to know how to make a critical reading of medical research articles.

The student will learn that different medical problems can influence dental health and that dental health problems can also affect the overall health of the individual. During the practical lessons, the complex relationship between patients and doctors and the attitude of the patients to the healthcare will be explored.

Among the medical conditions that the students should know at the end of the course, because their relevance in dentistry, are: ischemic heart disease, stroke, aspiration pneumonia, diabetes mellitus, metabolic syndrome, chronic renal disease, osteoporosis, Alzheimer's disease, pancreatic or oral cavity cancer, among others.

In summary, the future dentist should be able to recognize patients at risk of developing medical complications, to determine the severity of those risks and when it would be necessary to get help or advice from another colleague with specific knowledge of the subject in question.

The management of patients with multiple diseases should take into consideration the severity of each condition, the type of procedure to be performed, and in particular the associated trauma or distress and the duration of the procedure.



## **PAEDIATRICS:**

At the end of the subject, students are expected to be able to adequately perform dental care to paediatric patients with their specific needs. They also should act as agents within the health system in the prevention, promotion and protection of children's health.

## **DESCRIPTION OF CONTENTS**

### **1. THEORY. CLINICAL MEDICINE**

1. General health and disease. General concepts and main elements of Clinical Medicine.
2. Immunological mechanisms and disease: hypersensitivity reactions, autoimmunity and immunodeficiency.
3. Clinical manifestations of the disease. Pain. Fever. Inflammation.
4. Systemic inflammatory response syndromes. Concepts of bacteraemia, sepsis and septic shock.
- 5.-Genetic disorders. Clinical manifestations of hypoxia.
- 6.-CARDIOVASCULAR DISEASES:
  - 6.1-Arteriosclerosis.Hypertension. Vascularpathology.
  - 6.2.-Ischemic heart diseases.
  - 6.3-Infective endocarditis. Arrhythmias.
  - 6.4-Heart Failure.
- 7.-ENDOCRINE PATHOLOGY:
  - 7.1- Hypothalamic-pituitary-gland axis.
  - 7.2- Thyroid diseases.
  - 7.3- Diabetes Mellitus.
- 8.-DIGESTIVE PATHOLOGY:
  - 8.1- Esophageal diseases. Gastro duodenal diseases.
  - 8.2- Diseases of small and large bowel.
  - 8.3- Diseases of the liver and biliary tract. Liver failure.
- 9.-RENAL PATHOLOGY:
  - 9.1.- Acute and chronic renal failure.
  - 9.2.- Diseases of the urinary tract.
- 10.-RESPIRATORY PATHOLOGY:
  - 10.1 Respiratory failure. Consolidation, atelectasis and cavitation syndromes.
  - 10.2 Airway obstructions.
- 11.-NEUROLOGICAL PATHOLOGY:
  - 11.1 Cortex pathology. Diseases of the peripheral nervous system and cranial nerves.
  - 11.2 Headache and orofacial pain. Neuralgias.
  - 11.3 Meningeal diseases.
  - 11.4-Strokes.
- 12.-HEMATOLOGICAL DISEASES:
  - 12.1 Haemorrhagic diathesis.
  - 12.2 Anaemia.



12.3 Haematological malignancies. Myeloproliferative syndromes. Monoclonal gammopathies.  
13.- Main oropharyngeal cavity infections.

### **3. SEMINARS. CLINICAL MEDICINE**

Seminar 1: Clinical History, Anamnesis, Main Physical Exploration of head and neck  
Seminar 2: Diseases related to microorganism. Profilaxis post-exposure.  
Seminar 3: Tumoral Pathology.  
Seminar 4: Rheumatologic diseases: Osteoporosis.  
Seminar 5: Consciousness disturbances. Coma.  
Seminar 6: Pharmacology related to dentistry.  
Seminar 7: Management of main medical emergencies.  
Seminar 8: Clinical Cases in Clinical Medicine.

### **4. LAB EXERCISES. CLINICAL MEDICINE**

The lab activities consist mainly in the resolution of clinical cases, for which video and electronic resources will be used.

### **5. THEORY. PAEDIATRICS**

1. General characteristics of childhood and peculiarities of their assistance.
2. Growth and development.
3. Prenatal and neonatal disorders.
4. Nutrition and Metabolism.
5. Digestive and nutritional disorders.
6. Infectious Diseases.
7. Disorders that affects the development of the nervous and muscular system.
8. Haematological disorders.
9. Tumour diseases.
10. Cardiac and renal diseases.
11. Respiratory and otorhinolaryngologic diseases.
12. Endocrine and metabolic disorders.
13. Disease prevention and health promotion.
14. Paediatric pharmacology.
15. Emergencies.

### **6. SEMINARS. PAEDIATRICS**

- I. Organization and operation.
- II. Searching for information sources.
- III. General exploration and anamnesis.
- IV. Child psychology.
- V. Emergencies and CPR.
- VI. Case studies.





## VII. Case studies.

**WORKLOAD**

| ACTIVITY                                     | Hours         | % To be attended |
|--|---------------|------------------|
| Theory classes                               | 50,00         | 100              |
| Classroom practices                          | 25,00         | 100              |
| Laboratory practices                         | 15,00         | 100              |
| Development of group work                    | 20,00         | 0                |
| Study and independent work                   | 70,00         | 0                |
| Readings supplementary material              | 10,00         | 0                |
| Preparation of practical classes and problem | 35,00         | 0                |
| <b>TOTAL</b>                                 | <b>225,00</b> |                  |

**TEACHING METHODOLOGY**

ECTS assigned to the training activities of this material is distributed according to criteria to allocate 40% of hours to classroom activity and 60% of non-contact hour activities.

Classroom activity time will be distributed in 45% of the hours devoted to lectures, using expository method / master class, 40.5% of the hours devoted to practical teaching (seminars, case resolution, clinical practice) and tutorials and 4.5% of the hours dedicated to the final exam.

The classroom exercises include seminars in groups of about 30-35 students and laboratory practices in groups of about 15 students. The classroom exercises are aimed to strengthen and expand the relevant knowledge of the subject, promote self-learning and for solving problems and doubts. The lab exercises consist mainly in the resolution of clinical cases, for which video and electronic resources will be used.

The non-contact activities will be devoted to study, preparation of seminars and cases as well as the development of assignments that the students will be asked to develop, clarifying and looking more in-depth at the subject matter.

**EVALUATION**

There will be two independent evaluations, one for Clinical Medicine and the other for Paediatrics. A minimum grade is required in each part in order to pass the subject.

For the case of those students who pass only one of the parts, the marks obtained in that part will be kept indefinitely.



The final mark is calculated as the weighted average of those marks obtained in each of the materials, provided they reached the minimum required in each. Seventy per cent of the final mark is for Clinical Medicine and 30 % is related to the marks obtained in Paediatrics.

Learning assessment will be conducted according to the following criteria:

- Presentations, individually or in groups, on specific topics involved in the subject (20% of the overall assessment).
- Final written exam, multiple-choice exam to evaluate the knowledge of the subject (70% of the overall assessment).

In order to sit the test, students are required to have completed the previous activities, outlined in the previous paragraph.

The General Medical Pathology exam consists of 60 questions, most of them multiple response with 4 or 5 options of which only one is valid, and may include short, relational or other questions. Each correct question adds 1 point and each incorrect answer deducts 0.20.

The Pediatric exam consists of 35 questions, with five answers being only one correct. For each incorrect answer, 0.25 points will be subtracted from the final punctuation.

Attendance, attitude and degree of participation in class activities, practice and the proper use of new information technologies (10% of the overall evaluation)

**Students are reminded of the great importance of carrying out evaluation surveys of all the teaching teachers of this subject.**

## REFERENCES

### Basic

- - Guzmán, F. (2020). Introducción a la medicina clínica: fisiopatología y semiología. Barcelona: Elsevier.
- - Castro. & Arellano, J. (2020). Manual de patología general. Barcelona: Elsevier.
- - Nelson, W. E. et al. (2020) Nelson Tratado de pediatría / Edited by Robert M. Kliegman [i 5 més]. 21 edición. Barcelona: Elsevier.  
[https://trobes.uv.es/permalink/34CVA\\_UV/um6gse/alma991009433439306258](https://trobes.uv.es/permalink/34CVA_UV/um6gse/alma991009433439306258)
- - Lissauer, T. & Clayden, G. (2012) Texto ilustrado de pediatría / Tom Lissauer, Graham Clayden. 3a ed. Barcelona: Elsevier.  
[https://trobes.uv.es/permalink/34CVA\\_UV/um6gse/alma991008304249706258](https://trobes.uv.es/permalink/34CVA_UV/um6gse/alma991008304249706258).



#### Additional

- - Scully C. Scullys Medical Problems in Dentistry. Edinburgh: Churchill Livingstone; 2014.
- - Domarus, A., Valentí, P., Rozman, C. & López, F. (2020). Medicina interna. Barcelona: Elsevier.
- - Jameson, J. (2019). Harrison principios de medicina interna. Ciudad de México: McGraw-Hill Education.
- - Nowak, A. J. (2019) Pediatric dentistry: infancy through adolescence / Arthur J. Nowak [and four others], editors. Sixth edition. Philadelphia, PA: Elsevier. Disponible en: [https://trobes.uv.es/permalink/34CVA\\_UV/um6gse/alma991009398841406258](https://trobes.uv.es/permalink/34CVA_UV/um6gse/alma991009398841406258)