

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

### Información del Plan Docente

Academic Year	2016/17
Academic center	104 - Facultad de Medicina
Degree	304 - Degree in Medicine
ECTS	9.0
Course	4
Period	First semester
Subject Type	Compulsory
Module	---

### 1. Basic info

#### 1.1. Recommendations to take this course

#### 1.2. Activities and key dates for the course

### 2. Initiation

#### 2.1. Learning outcomes that define the subject

#### 2.2. Introduction

### 3. Context and competences

#### 3.1. Goals

#### 3.2. Context and meaning of the subject in the degree

#### 3.3. Competences

#### 3.4. Importance of learning outcomes

### 4. Evaluation

### 5. Activities and resources

#### 5.1. General methodological presentation

The learning process that is designed for this subject is based on the following:

\* The subject and cardiovascular system Endocrinology and Nutrition, is divided into 45 theoretical lectures of one hour, 18 hours of seminars, 18 hours of workshops and 6 hours of tutoring.

\* The content of the lectures will be based on a text or manual previously recommended and adapted to the level of student knowledge

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

\* In seminars and workshops, students will work on clinical cases and should solve problems posed by personal and team work.

\* The student will apply the acquired knowledge in this subject and in every grade, in the "supervised practice" comprising, on a mandatory basis in the first quarter of 6th grade year (course 26730) 30 ECTS (750 hours) and in the second quarter of the same year (course 26731) 24 ECTS (600 hours) and optionally in the second quarter of the 5th grade year (course 26728) 18 ECTS (450 hours) and the subject 26729 12 ECTS (300 hours), which makes up to 2100 hours of clinical practices developed in the form of rotating by different healthcare services throughout 18 months.

### 1. BLOCK OF CARDIOVASCULAR SYSTEM.

The learning process that is designed for Cardiovascular matter has intended his teaching 125 hours (75 to Medicine and Surgery 50) which are divided into:

#### A. Classroom Teaching (45%): 55 hours (33 Medicine and Surgery 22)

\* **Classes in large groups:** Corresponds to lectures on the theory of the subject, are expositive using computer, projector, etc. Its content will be based on a text or manual previously recommended and adapted to the level of knowledge of the student.

\* **Seminars:** Teaching based on clinical cases involving student and answers to the teacher's questions, by personal and team work.

\* **Workshops:** They students formulate diagnoses based on their previous knowledge of semiotics and logic as therapeutic orientations formulated diagnoses.

\* **Tutorials:** These consist of personal interviews with a teacher for academic guidance and resolution of doubts raised by the student.

\* **Evaluation:** Includes the different tests described in other sections for verification of theoretical and practical knowledge and other skills acquired.

#### B. No presential Teaching (55%): 69 hours (41 to Medicine and Surgery 28):

\* It involves staff student study based on different sources of information and individual work.

### 2. BLOCK OF ENDOCRINE SYSTEM AND NUTRITION.

The learning process that is designed to matter endocrinology has designed its teaching 100 hours (75 to Medicine and Surgery 25), which are divided into:

#### A. Classroom Teaching (45%): 45 hours (34 and 11 Medicine Surgery)

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

\* **Classes in large groups** : Corresponds to lectures on the theory of the subject, are expositives using computer, projector, etc. Its content will be based on a text or manual previously recommended and adapted to the level of knowledge of the student.

\* **Seminars** : Teaching based on clinical cases involving student and answers to the teacher's questions, by personal and team work.

\* **Workshops** : They students formulate diagnoses based on their previous knowledge of semiotics and logic as therapeutic orientations formulated diagnoses.

\* **Tutorials** : These consist of personal interviews with a teacher for academic guidance, review of one or more topics, etc.

\* **Evaluation** : This includes the various tests described in other sections for verification of theoretical and practical knowledge and other skills acquired.

### **B. No presential Teaching(55%): 55 hours (41 to Medicine and Surgery 14):**

\* It involves staff student study based on different sources of information and individual work.

## 5.2.Learning activities

The program that the student is offered to help you achieve the results expected in the course of cardiovascular system and endocrine and nutrition includes the following activities that include 9,00 ECTS (225 hours):

- **P resential Teaching: Classroom education (45%): 4.05 ECTS: 101.3 h.**

- **Large groups:** 1,83 ECTS (46 hours).
- o **Theoretical classes:** Lectures using computer, projector, etc.
- **Small groups: ECTS 1.8 (45.5 hours)**
- o **Seminars** : ECTS 0.8 (20.5 hours). Teaching based on clinical cases involving student and answers to the teacher's questions
- o **Workshops** : 0.7 ECTS (18.2 hours). Diagnostic formulation based on prior knowledge of semiotics. logical therapeutic orientations as diagnostic formulations.
- o **Tutorials** : 0.3 ECTS (6.8 hours): Personal interview with a teacher (academic guidance, review of one or more topics, etc.)

- **Evaluation** : 0.4 ECTS (10.2 hours): Implementation of the various tests described in other sections for verification of theoretical and practical knowledge and other skills acquired.

- **No presential Teaching** 4.9 ECTS (123.7 hours). Personal Student study based on different sources of information and individual work.

## 5.3.Program

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

### BLOCK OF CARDIOVASCULAR SYSTEM

The program that the student is offered to help you achieve the expected results in the field Cardiovascular System includes the following activities that include 5.00 ECTS (125 hours):

#### Preresential Teaching:

- **Classroom teaching** or Lectures: There are 25, one hour, 15 medical and 10 surgical covering the following program:
  - Unit 1. Syncope: Concept. Clinical forms. Diagnosis. Forecast. Treatment.
  - Unit 2. Heart failure. Concept. Classification. Acute Pulmonary Edema.
  - Unit 3. Chronic Heart Failure: Etiology. Pathophysiology. Clinical manifestations. direct and differential diagnosis. Prognostic evaluation. Treatment. Heart failure with high cardiac output: circulatory hyperkinetic syndromes.
  - Unit 4. Surgical treatment of heart failure.
  - Unit 5. Cardiac arrhythmias. Sinus Arrhythmia. Extrasystolia and parasystolia. Supraventricular and ventricular tachycardias. Flutter and fibrillation atrial and ventricular. Heart block. Adams Stokes syndrome. Ventricular pre-excitation syndromes.
  - Unit 6. Sudden death. Cardiac arrest: diagnosis and treatment. General treatment of cardiac arrhythmias.
  - Unit 7. Adult congenital heart disease. Atrial septal defect. Interventricular communication. Ductus arteriosus. Aortic coarctation. Ebstein disease.
  - Unit 8. Surgery of congenital heart disease
  - Unit 9. Rheumatic fever. Acquired valvular stenosis and mitral regurgitation. Stenosis and aortic insufficiency. Tricuspid disease
  - Unit 10. Acquired valvular surgery.
  - Unit 11. Infective Endocarditis. Injury risk. Diagnosis. Treatment.
  - Unit 12. Pericardial pathology. Acute pericarditis. Cardiac tamponade. Constrictive pericarditis.
  - Unit 13. Surgery of the pericardium. Cardiac and vascular trauma.
  - Unit 14. Myocarditis and cardiomyopathies. Concept. Types. Clinical manifestations. Diagnosis and treatment.

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

- Unit 15. Hypertension. Concept. Classification. Clinical manifestations and complications. Hypertensive heart disease. Risk stratification. Treatment.
- Unit 16. Atherosclerosis: Concept. Epidemiology. Risk factors. Clinical forms. Cardiovascular prevention. Ischemic Heart Disease: Concept. Aetiology. Clinical forms. Diagnosis and treatment.
- Unit 17. Angina pectoris. Concept. Classification. Etiology. Diagnosis. Treatment.
- Unit 18. Myocardial Infarction: Concept. Etiopathogenesis. Diagnosis. Treatment. Complications. Prognostic factors. Secondary prophylaxis of ischemic heart disease.
- Unit 19. Surgery of ischemic heart disease and its complications
- Unit 20. Functional Heart Disease. Nonischemic chest pain. Differential diagnosis.
- Unit 21. Surgery of the aortic arch and the thoracic aorta.
- Unit 22. General principles of Vascular Surgery. Syndrome of acute ischemia. Embolism and arterial thrombosis.
- Unit 23. Syndrome chronic ischemia.
- Unit 24. Arterial Aneurysms.
- Unit 25. Surgery of the supra-aortic trunks.
  - **Small groups: 25 hours**
  - **Seminars of medicine:** 4 of 1 hour and 30 minutes
- Patient with supraventricular arrhythmias: diagnosis and treatment.
- Patient with ventricular arrhythmias: diagnosis and treatment.
- Patient with dilated cardiomyopathy.
- Patient with hypertrophic cardiomyopathy
- **Workshops medicine:** 4 of 1 hour and 30 minutes
- Management of patients with acute coronary syndrome without ST elevation.
- Management of patients with acute coronary syndrome with ST elevation.
- Management of a patient with acute heart failure.

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

- Management of a patient with chronic heart failure.
  - o **Medical Tutorials: 2 hours.**
  - o **Seminars surgery: 3 hours.**
- Arterial Semiology: (1.5 hours).
- Vascular emergencies: (1.5 hours).
  - o **Workshops surgery: 3 hours.**
- Venous Semiotics I: Chronic (1.5 hours) venous insufficiency.
- Venous and lymphatic II Semiología: Venous thrombosis. Complications and sequelae (1.5 hours).
  - o **Surgery Tutorials: 1 hour**
- \* **Evaluation of Medicines: 3 hours.**
- \* **Evaluation of surgery: 2 hours.**
- \* **No presential Teaching medicine: 41 hours.**
- \* **No presential Teaching surgery: 28 hours.**

### BLOCK ENDOCRINE SYSTEM AND NUTRITION

The program that the student is offered to help you achieve the expected results in the field Endocrinology and Nutrition includes the following activities that include 4.00 ECTS (100 hours):

#### **P resential Teaching:**

- **Classroom teaching:** or Lectures: 17, corresponding to 10 tracks of medicine and surgery 5 covering the following program (M: class of medicine; C: kind of surgery):
- Unit 1. (M) Pathology of calcium and phosphorus metabolism (1 hour).
- Unit 2. (M) Pituitary Pathology (2 hours).
- Unit 3. (M) Pathology adrenal (1 hour)
- Unit 4 (C) Surgery of the adrenal glands (1 hour).

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

- Unit 5. (M) gonadal Pathology (1 hour).
- Unit 6. (M) Obesity and malnutrition (1 hour).
- Unit 7. (C) Surgery for morbid obesity and metabolic (1 hour).
- Unit 8. (M) Thyroid Pathology (2 hours).
- Unit 9. (C) General principles of surgery of the thyroid and parathyroid glands (1 hour).
- Unit 10. (C) Tumors of the thyroid gland (1 hour).
- Unit 11. (C) Surgery of the parathyroid glands (1 hour).
- Unit 12. (M) Diabetes mellitus I (1 hour).
- Unit 13. (M) Diabetes Mellitus II (1 hour).
- Unit 14. (M) Dyslipidemia (1 hour).
- Unit 15. (M) Other endocrine processes (1 hour).

- **Small groups:**

- **Medical Seminars: 6 hours**

1. Treatment regimens in type 2 diabetes mellitus.
2. Characteristics of syndromes hypopituitarism.

- **Medical Workshops: 6 hours**

1. How to face a thyroid problem in clinical practice.
2. Problems of Clinical Nutrition.

- **Medical Tutorials: 2 hours**

- **Seminars surgery: 2 hours**

1. Cervical infections

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

### 2. Metabolic and Bariatric Surgery

#### - Workshops surgery: 2 hours

1. digestive endocrine tumors. Introducing more frequent cases.

#### - Surgery Tutorials: 1 hour

- Evaluation of medicine: 3 hours
- Evaluation of surgery: 1 hour

\* No presential Teaching medicine: 41 hours

\* No presential Teaching surgery: 14 hours

## 5.4.Planning and scheduling

### 1. BLOCK OF CARDIOVASCULAR SYSTEM

The scheme of planning the development of this part of the course includes:

\* Twenty-five lectures distributed, according to the general organization of the course

\* Seminars: 6 according to the schedule of the subject.

\* Workshops: 6 according to the schedule of the subject.

\* The work of small groups (1-6 students) will be made and delivered as directed by the professor. Each group will only work on all offered on the part of the subject of "cardiovascular system".

\* 69 hours of non-contact activities

### 2. BLOCK ENDOCRINE SYSTEM AND NUTRITION

The scheme of planning the development of this part of the course includes:

\* Lectures: 17, according to the general organization of the course.



## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

\* Seminars: 4 according to the schedule of the subject.

\* Workshops: 3 according to the schedule of the subject.

\* The work of small groups (1-6 students) distributed at the Seminars will be made and delivered in the time period specified by the responsible teacher. Each group will only work on all offered in seminars.

\* 41 hours of non-contact activities.

### **Presentation of papers Cardiovascular block**

#### **WORK RULES**

##### **\* Cardiovascular surgery Topics**

- minimally invasive cardiac surgery
- endovascular or surgical techniques

##### **\* Topics cardiology**

- acute coronary syndrome with ST elevation
- acute coronary syndrome without ST elevation
- acquired valvular
- bacterial endocarditis
- supraventricular tachycardias
- ventricular tachycardias
- atrial Fibrillation
- hypertrophic Cardiomyopathy

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

- dilated cardiomyopathy

\* Deliver deadline the day before the exam in January or September.

\* A job, chosen from a medical or surgical issue between a maximum of 6 students will be held.

\* They will be made on a specific aspect (working title) of one of the proposed topics. Example: On the treatment of Wolff Parkinson White Syndrome within supraventricular tachycardias.

### **FORMAT:**

\* PDF. Margins: 2.5. ARIAL / 12. Single spacing or 1.5. right upper page. Word Count: 2500-3000.

\* 1st page:

- selected topic among those proposed.

- job title.

- author (maximum of 6 may be included)

\* 2nd page:

- Authors, indicating the degree of participation or specific aspect of the work which is responsible each.

\* Last Page: Consulted bibliography. Vancouver standards.

### **STRUCTURE:**

\* Specific objective of the work in relation to the chosen theme

\* Material and methods:

- Keywords or used. Criteria. (Range, years ...)

- Number of items found in the item. \* Number of revised articles. Item Type: Review, - Update, meta-analyses, case series, Testing ...

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

- aspects / issues / points / concrete review / analysis in relation to the job objective data: Database

\* Results obtained (In relation to the revised / database)

\* Discussion and conclusions

\* Bibliography

\* Attach the Abstracts of revised at the end of work items as ANNEX 1

### 5.5. Bibliography and recommended resources

#### BIBLIOGRAPHY:

- BB** [Endocrinología y nutrición - cirugía] - Compendio de cirugía / H. Durán Sacristán ... [et al.] . [1ª ed., 1ª reimp.] Madrid [etc.] : McGraw-Hill Interamericana, D.L. 2003
- BB** [Endocrinología y nutrición - cirugía] - Principios de cirugía [10ª ed.] / editor en jefe, F. Charles Brunicardi ; editores asociados, Dana K. Andersen ... [et al.] ; traducción, Martha Elena Araiza Martínez, Rafael Blengio Pinto, José Luis González Hernández ; traductor de vídeos, Anahí Chong Hurtado. - 10ª ed. México ; Madrid [etc.] : McGraw-Hill Interamericana, cop. 2015
- BB** [Endocrinología y Nutrición - cirugía] - Textbook of Diabetes / edited by Richard I. G. Holt... [et al.] . 4th ed. Oxford [etc.] : Wiley-Blackwell, 2010
- BB** [[Endocrinología y nutrición - cirugía] - Tratado de cirugía : fundamentos biológicos de la práctica quirúrgica moderna / [editor] Courtney M. Townsend, Jr. ; [editores asociados] R. Daniel Beauchamp, B. Mark Evers, Kenneth L. Mattox . 18ª ed. Barcelona [etc.] : Elsevier, cop. 2009 [Precede al tít: Sabiston]
- BB** Endocrinología y nutrición - medicina - Medicina interna [18ª ed.] / fundado por A. von Domarus ; continuado por P. Farreras Valentí ; director (desde 1968) C. Rozman ; subdirector (desde 2003), F. Cardellach López . - 18ª ed. Barcelona : Elsevier, 2016
- BB** Endocrinología y nutrición - medicina - Principios de medicina interna [19ª ed.] / editores, Dennis L. Kasper... [et al.] . - 19ª ed. México ; Madrid [etc.] : McGraw-Hill, cop. 2016

## 26773 - Cardiovascular, Endocrinology and Nutrition Systems

- BB** [Endocrinología y nutrición - medicina] - De Groot, Leslie, J; Jameson, J.Larry. Endocrinology. Elsevier Health Sciences, 2010
- BB** [Endocrinología y nutrición - medicina] - Endocrinología / coordinador, Antonino Jara Albarrán ; coordinadores asociados, Petra Sánchez García-Cervigón, Alfonso Arranz Martín, Víctor Manuel Andía Melero . 2ª ed. Buenos Aires ; Madrid [etc.] : Editorial Médica Panamericana, 2010
- BB** [Endocrinología y nutrición - medicina] - Tratado de nutrición / editor Ángel Gil Hernández . Madrid : Acción Médica, 2005
- BB** [Endocrinología y nutrición - medicina] - Tratado SED de diabetes mellitus : [bases moleculares, clínicas y tratamiento] / directores R. Gomis de Barbará ... [et al.] ; coordinadores M. Aguilar Diosdado ... [et al.] . Buenos Aires ; Madrid [etc.] : Editorial Médica Panamericana, D.L. 2007
- BB** [Sistema cardiovascular - cirugía] - Compendio de cirugía / H. Durán Sacristán ... [et al.] . [1ª ed., 1ª reimp.] Madrid [etc.] : McGraw-Hill Interamericana, D.L. 2003
- BB** [Sistema cardiovascular - cirugía] - Principios de cirugía [10ª ed.] / editor en jefe, F. Charles Brunicardi ; editores asociados, Dana K. Andersen ... [et al.] ; traducción, Martha Elena Araiza Martínez, Rafael Blengio Pinto, José Luis González Hernández ; traductor de vídeos, Anahí Chong Hurtado. - 10ª ed. México ; Madrid [etc.] : McGraw-Hill Interamericana, cop. 2015
- BB** [[Sistema cardiovascular - cirugía]] - Tratado de cirugía : fundamentos biológicos de la práctica quirúrgica moderna / [editor] Courtney M. Townsend, Jr. ; [editores asociados] R. Daniel Beauchamp, B. Mark Evers, Kenneth L. Mattox . 18ª ed. Barcelona [etc.] : Elsevier, cop. 2009 [Precede al tít: Sabiston]
- BB** [Sistema cardiovascular - medicina] - Medicina interna [18ª ed.] / fundado por A. von Domarus ; continuado por P. Farreras Valentí ; director (desde 1968) C. Rozman ; subdirector (desde 2003), F. Cardellach López . - 18ª ed. Barcelona : Elsevier, 2016
- BB** [Sistema cardiovascular - medicina] - Principios de medicina interna [19ª ed.] / editores, Dennis L. Kasper... [et al.] . - 19ª ed. México ; Madrid [etc.] : McGraw-Hill, cop. 2016