

## 26726 - Diagnostic and Therapeutic Procedures: Pharmacology and Dietetic II

### Información del Plan Docente

Academic Year	2016/17
Academic center	104 - Facultad de Medicina
Degree	304 - Degree in Medicine
ECTS	6.0
Course	4
Period	Second 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 activities proposed are focused on the understanding and assimilation of the mainstays of the Pharmacology as well as in the knowledge and use of the drugs. This is essential for the future development of the medical professionals.

La general vision of the knowledge obtained in the theoretical class is completed with the practical activities, where the student got used to the different methods and their application in medicine.

## 26726 - Diagnostic and Therapeutic Procedures: Pharmacology and Dietetic II

The students can use the tutorial hours to get a better following of the learning process. These hours can be directed to the conventional tutoring session or to specific session related with the practical work.

The basic material of the course, such as the subject program, the summaries of the theoretical themes, the complementary material to the practical class and the schedule, will be uploaded to the website. The web page is <http://www.unizar.es/dvirtual.htm> (Anillo Digital Docente).

The subject is structured as follows:

Classroom-based activities are developed through 32 participatory classes and involve big group of students. The practical classes and/ or seminars consist of 20 class hours divided into working sessions of two hours and a half each. In this case the students will be distributed in small groups.

### 5.2.Learning activities

With the aim of getting the expected learning results the program offered to the student include the next activities:

Theory classes on big groups (1,28 ECTs)

Self-study explanation and orientation of the subject contents directed to acquire the competences and learning results. All available resources about audiovisual support will be used.

Practical classes in small groups (0,72 ECTS)

Each group of students will receive practical classes for two weeks.

Student's autonomous work (3,64 ECTS)

All students will be informed about the risk associated with some practical classes, such as the use of dangerous products and they also will be advised on the procedures to be followed in case of accident. Every student must sign a commitment to comply with the work rules and safety standards in order to carry out the practical classes. More information in <http://uprl.unizar.es/estudiantes.html>

### 5.3.Program

#### Thematic block 1

Pharmacology of the Cardiovascular and Renal System

## **26726 - Diagnostic and Therapeutic Procedures: Pharmacology and Dietetic II**

Pharmacology of the Lipid Lowering Agents

Pharmacology of the Respiratory System

Pharmacology of the Digestive System

Pharmacology of the Endocrine System

Pharmacogenetics and Pharmacogenomics

Nutrition and Dietetics: Interaction nutrient-drug. Nutrigenomics

### **Thematic block 2**

Evolution and context of the Clinical Pharmacology

Selection and rational use of the medicament. Guide to Good Prescribing

Drug development

Clinical Trial : methodological, ethical and legal aspects

Generic and bioequivalent medicaments

Pharmacoepidemiology. Pharmacovigilance. Evidence-based therapeutic.

Pharmacoeconomics

Social aspects of the drugs.

The use of drugs during pregnancy, lactation, and infancy.

Drugs in the elderly: renal and hepatic failure

Therapeutic drug monitoring

Treatment of acute intoxications

## 26726 - Diagnostic and Therapeutic Procedures: Pharmacology and Dietetic II

### Practical Classroom teaching with small group

1. Simulation of drug administration on the Cardiovascular System
2. Problem-based learning; training of practical assumptions and solution of problems by working together
3. Selection and rational use of the medicaments: Vademecum of the generation course
4. Critical analysis of clinical trials
5. Advanced simulation of the drug usage on emergency situations II

### 5.4.Planning and scheduling

**Theoretical class** in big group: three hours each week

Theoretical class will be carried during three days per week from 9:00 until 10 hours and from 10:00 until 11:00 hours

**Practical class** in small groups of students:

10 hours each week and two weeks each group of students

Timetable: from 11.00 until 13:00 hours during all days of the week

Every group of students will develop the same training activities in theory as well as practice.

### 5.5.Bibliography and recommended resources

- Baños Díez, Josep-Eladi. Principios de farmacología clínica / Josep-Eladi Baños Díez, Magí Farré Albaladejo Barcelona [etc.] : Masson, D.L.2002
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- Farmacología humana / director, Jesús Flórez ; directores asociados, Juan Antonio Armijo, África Mediavilla . - 6ª ed. Ámsterdam ; Barcelona ; Madrid [etc.] : Elsevier Masson , 2014
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- Lorenzo Velázquez, Benigno. Farmacología básica y clínica / Velázquez ; [colaboradores], P. Lorenzo ... [et al.]. - 18ª ed., 2ª. reimp. Madrid [etc.] : Editorial Médica Panamericana, 2010