

## 68408 - Clinical and pharmacological-genetic biochemistry

### Información del Plan Docente

Academic Year	2017/18
Faculty / School	104 - Facultad de Medicina
Degree	353 - Master's in Introduction to Medical Research 530 - Master's in Introduction to Medical Research
ECTS	5.0
Year	---
Semester	Indeterminate
Subject Type	Optional
Module	---

### **1.General information**

#### **1.1.Introduction**

#### **1.2.Recommendations to take this course**

#### **1.3.Context and importance of this course in the degree**

#### **1.4.Activities and key dates**

### **2.Learning goals**

#### **2.1.Learning goals**

#### **2.2.Importance of learning goals**

### **3.Aims of the course and competences**

#### **3.1.Aims of the course**

#### **3.2.Competences**

### **4.Assessment (1st and 2nd call)**

#### **4.1.Assessment tasks (description of tasks, marking system and assessment criteria)**

### **5.Methodology, learning tasks, syllabus and resources**

#### **5.1.Methodological overview**

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as

- Lectures
- Seminars

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- Case studies and problem-solving using the Problem-based learning (PBL) methodology
- Literature review
- Assignment

### 5.2.Learning tasks

The course includes the following learning tasks:

- Lectures
- Seminars
- Case studies and problem-solving using the Problem-based learning (PBL) methodology
- Literature review. In addition to the literature on paper, students should bring computers/tablet/Smartphone to have access to online resources too
- Assignment

### 5.3.Syllabus

The course will address the following topics:

1. Pharmacogenetic bases that support applied knowledge of pharmacogenetics in the clinic for the individualization of drug therapy, with subsequent application.
2. Differences in drug responses, whether therapeutic or toxic.
3. Applied knowledge of pharmacogenetics to the clinic for the individualization of drug therapy, with subsequent application.
4. Nutrition.
5. Concept of nutrient classification, biochemical and functional nutrients.
6. Deficit in nutrient intake, nutritional effects, pharmacological effects and toxic pathologies caused by nutrients and mineral micronutrients produced by excess deficits, intakes of toxic elements or genetic cause.

### 5.4.Course planning and calendar

#### Timetable

- The course will be held in the second semester.
- WEDNESDAY: 11, 18, &#8203;&#8203;25 January - 1, 8, 15, 22 February - 1 March.
- The schedule and classroom will be determined by the Centre (in previous years the schedule was from 16 to 20 hours).

Further information concerning the timetable, classroom, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the Faculty of Medicine <https://medicina.unizar.es/>.

### 5.5.Bibliography and recommended resources

- **Magnesio, el electrolito olvidado/** Marisol Soria Aznar y cols. Zaragoza: Prensas de la Universidad de Zaragoza, 2013.
- **Contribución actual de los elementos traza y minerales en medicina: su papel clínico/** Silvia Izquierdo Álvarez y cols. Zaragoza: Prensas de la Universidad de Zaragoza, 2013.