

Academic Year/course: 2022/23

## 26771 - Dermatology, Immunopathology and Toxicology

### Syllabus Information

**Academic Year:** 2022/23

**Subject:** 26771 - Dermatology, Immunopathology and Toxicology

**Faculty / School:** 104 - Facultad de Medicina

**Degree:** 304 - Degree in Medicine

**ECTS:** 9.0

**Year:** 3

**Semester:** Second semester

**Subject Type:** Compulsory

**Module:**

### 1. General information

### 2. Learning goals

### 3. Assessment (1st and 2nd call)

### 4. Methodology, learning tasks, syllabus and resources

#### 4.1. Methodological overview

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

For the training of students, two fundamental types of activities will be carried out:

- 1. Face-to-face activities in large and small groups:
  - 1.1 Lectures.
  - 1.2 Theoretical-practical seminars, with clinical case realization.
  - 1.3 Clinical practices in smaller groups.
  - 1.4 Workshops.
- 2. Non-classroom activities, in which the student will be the main actor:
  - 2.1 Clinical case realization by the student (ADD).
  - 2.2 Self-assessment with solutions provided by teachers (ADD).
  - 2.3 Collection of documentation by the student throughout the course (publications, reports and clinical records, photographs, videos, preparation and creation of clinical cases, training material, etc.).

#### **1. DERMATOLOGY AND VENERELOGY:**

This block has 4 credits (ECTS) equivalent to 100 hours, of which 45% are attended (45 hours) and 55% are non-attended (55 hours).

The distribution of classroom hours is as follows:

- LARGE GROUPS (THEORETICAL CLASSES) (45%) 20,25 hours.

- SMALL GROUPS: 45% 20,25 hours.

- Problems and cases: 10 hours.
- Practical work: 2 hours.
- Workshops: 2.25 hours.

- Clinical practices: 6 hours.

- EVALUATION (10%) 4.5 hours.

**TOTAL:** 45 hours.

## **2. IMMUNOPATHOLOGY:**

This block has 2.5 credits (ECTS) equivalent to 62.5 hours, of which 45% are attended (28 hours) and 55% are non-attended (33 hours).

The distribution of classroom hours is as follows:

- LARGE GROUPS (THEORETICAL CLASSES) (45%) 13 hours.
- SMALL GROUPS: 45% 13 hours.
  - Workshops: 8 hours.
  - Problems and cases: 5 hours.

- EVALUATION (10%) 2 hours.

**TOTAL:** 28 hours.

## **3. CLINICAL TOXICOLOGY:**

This block has 2.5 credits (ECTS) equivalent to 62.5 hours, of which 45% are attended (28 hours) and 55% are non-attended (33 hours).

The distribution of classroom hours is as follows:

- LARGE GROUPS (THEORETICAL CLASSES) (45%) 13 hours.
- SMALL GROUPS: 45% 13 hours.
  - Presentation of clinical cases: 7 hours.
  - Practice in the Toxicology laboratory: 6 hours.

- EVALUATION (10%) 2 hours.

**TOTAL:** 28 hours.

The program offered to the student to help achieve the expected results includes the following activities:

- Theoretical classes, with the development of the contents referred in the program.
- Presentation of clinical cases of acute intoxication, with a description of the diagnostic and therapeutic tools.
- Practice in the Toxicology laboratory in small groups (maximum 5 students per group) where you will see the different techniques used in the toxic analysis (immunoenzymatic analysis, gas chromatography and mass spectrometry).

## **4.2. Learning tasks**

***The course includes the following learning tasks:***

- **Large group sessions:** one-hour lectures in which the theoretical contents necessary and general of the subject are presented to develop the competences. It is in the general interest of teachers to encourage participation.

- Division by study groups of:

1. Dermatology.
2. Immunopathology.
3. Clinical Toxicology.

- **Working in small groups:** during the semester of activity, students distributed in 12 groups of 10-20 students (according to semester planning) will perform tutored tasks according to the following plan:

- Division by study groups of:

1. Dermatology.
2. Immunopathology.
3. Clinical Toxicology.

- Activities in small groups:

- Clinical and Laboratory Practices: Face-to-face activities in the hospital and clinic units and Laboratory.
- Workshops: Carrying out mainly practical activities with the active participation of the students.
- Seminars: Troubleshooting of clinical cases.
- Preparation of documents and/or portfolios in printed and digital format.
- Tutorials: The student will be able to carry out personal tutorials requesting through the internal mail of the subject. To this end, a time slot should be agreed at the beginning of the course.
- Incorporation of materials made to the web and to the ADD and that are considered elements of consultation for all the components of the course.

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Regarding the implementation of Clinical Practices, (in which they will work with real patients) and Laboratory Practices (Toxicology), students are reminded of the regulations of the University of Zaragoza on Prevention of Occupational Hazards and Confidentiality:

- Every student will be informed about the risks that the practice of this subject can carry out, as well as if dangerous products are handled and what to do in case of an accident, and must sign the commitment to comply with the working and safety standards for To carry them out. For more information, consult the information for students of the Unit of Prevention of Occupational Risks: <http://uprl.unizar.es/estudiantes.html>

- All students who perform practical activities in which they manage personal data or the patient's medical history is obliged to keep the confidentiality of the same.

### 4.3. Syllabus

*The course will address the following topics:*

#### **1. DERMATOLOGY AND VENERELOGY:**

**A. Large group sessions:** one-hour lectures until 20.25 hours in which the theoretical contents necessary and general of the subject are presented to develop the competences. It is in the general interest of teachers to encourage participation.

- Program:

##### **1. Introduction to the Dermatology:** 1.25 hours.

- Nomenclature of Skin Lesions: Primary and secondary clinical lesions.
- Dermatopathology: The Basics.

##### **2. Infectious skin diseases:** 3.5 hours.

- Bacterial infections of the skin.
- Mycobacterial infections.
- Mucocutaneous mycoses.
- Dermatoses of viral origin.
- Parasitic skin diseases.

##### **3. Sexually transmitted diseases:** 1.5 hours.

- Syphilis.
- Chancroid.
- Urethritis.
- Lymphogranuloma venereum
- Other Sexually Transmitted Diseases
- Cutaneous manifestations of AIDS.

##### **4. Cutaneous, mucosal and adnexal diseases. Part I:** 4 hours.

- Psoriasis and other disorders of keratinization.
- Lichen the ruber planus.
- Pityriasis Rosea.
- Eczema. Contact dermatitis. Atopic dermatitis. Seborrheic dermatitis.
- Bullous diseases.

##### **5. Cutaneous, mucosal and adnexal diseases. Part II:** 3 hours.

- Urticaria.
- Erythema multiform.
- Adverse Drug Reactions.
- Pigmentation disorders.
- Acne. Rosacea. Alopecia.
- Genodermatoses.

#### 6. Dermatology and Internal Medicine: 3 hours.

- Vasculitis. Panniculitis.
- Connective diseases: Lupus eritematosus. Scleroderma. Dermatomyositis.
- Cutaneous signs of systemic endocrine and metabolic disorders.

#### 7. Oncology: 4 hours.

- Benign skin tumors.
- Benign and malignant melanocytic skin tumors.
- Epithelial skin cancer.
- Vascular tumors.
- Cutaneous lymphomas.
- Histiocytoses.
- Mastocytoses.

**B. Working in small groups:** during the six months, the students divided into 12 groups (as planning semester) tutored undertake tasks according to the following plan:

- **Presential activities:** in clinical and hospitalary dependences.
- **Workshops:** Classroom activities with active student participation.
- **Tasks:** Solving problems of dermatological clinical cases.
- **Delivery of the Portfolio** document in print and digital format.
- **Incorporation of materials made to the website** [dermatologia.unizar.es](http://dermatologia.unizar.es) and ADD are considered elements of consultation for all components of the course.

## 2. IMMUNOPATHOLOGY:

**A. Large group sessions:** one-hour lectures until 13 hours in which the theoretical contents necessary and general of the subject are presented to develop the competences. It is in the general interest of teachers to encourage participation.

- Program:

### 1. Challenges of the immune system.

- Defense against infections. General characteristics. Inflammation. Immune response against distinct phatogens.
- Pathogen evasion of the immune system.

### 2. Immunodeficiency states.

- General characteristics od the immunodeficiency states. Primary and secondary immunodeficiencies.

### 3. Pathologic states of the immune system: allergy and autoimmunity.

- Hypersesitivity reactions. Effector mechanisms. Immediate hypersensitivity. Delayed hypersensitivity.
- Respiratory and food allergies in adults. Drug allergy.
- Urticaria, angioedema, anaphylaxis.
- General principles of the autoimmunity mechanisms. Genetic susceptibility to the autoimmune diseases.
- Systemic and organ-specific autoimmune diseases.

### 4. Special states of the immune system: tumors and transplantation.

- Tumor immunity. Tumor evasion of the immune system hypersensitivity.
- Transplantation. Molecular al cellular basis of the allogenic recognition. Role of the HLA system. Effecto mechanisms of the rejection.

### 5. Handling the immune system.

- Vaccines. Immunization principles. Vaccine development strategies. Main types of vaccines.

- Immunomodulation. Therapeutic antibodies in distinct pathologies.

**B. Working in small groups:** during the six months, the students divided into 12 groups (as planning semester) tutored undertake tasks according to the following plan:

- **Workshops:** Classroom activities, mainly practical, with the activity participation of the students regarding to immunological diagnosis in different immune diseases.
- **Problems and cases:** Solving problems of immunological cases.
- **Delivery of the REPORT** regarding to performed working in small groups.
- **Tutorials:** The student will be able to carry out personal tutorials requesting through the internal mail of the subject. To this end, a time slot should be agreed at the beginning of the course.

○ Contents:

- Immunology Laboratory
- Allergy: allergens, diagnostic and therapeutic tools.
- Autoimmune diseases: clinical cases.

Attendance at Workshops and/or Seminars IS MANDATORY, requiring a minimum attendance of 80%.

ADD: the digital teaching platform will be used as a communication and support tool for face-to-face teaching. Through this tool we can include content related to theoretical classes and workshops as well as send and refer the clinical problems raised and make corrections before the discussion or presentation.

Tutorials: the student will be able to carry out personal tutorials requesting through the internal mail of the subject. To this end, a time slot should be agreed at the beginning of the course.

Bibliographic references: For the development of the theoretical classes and the personal study, a text or manual previously recommended and other documents-publications that are useful at the time of taking the course will be used. All this adapted to the level of knowledge of the student.

### **3. CLINICAL TOXICOLOGY:**

**A. Theoretical classes,** with the following contents:

#### **1. GENERAL TOXICOLOGY.**

- Concept and evolution of Clinical Toxicology.
- Toxicokinetic and Toxicodynamic processes.
- Etiology and Epidemiological profile of acute poisoning.
- Clinic and Diagnostic tools of acute poisoning.
- General treatment of acute poisoning.

#### **SPECIAL TOXICOLOGY.**

- Acute poisoning diagnosis and management by agents or families.
- Drugs of abuse.
- Psychoactive, analgesic, and antiarrhythmic medicines.
- Irritant and toxic gases.
- Pesticides.
- Domestic products.
- Toxins.

### **B. Working in small groups:**

- **Clinical case discussion** (8 hours): presentation of two acute poisoning cases per student. It requires prior student work to improve their participation in the meetings and thus active learning (maximum 30 students).
- **Laboratory activities** (3 hours): Analytical techniques used in the toxicology laboratory.

## **4.4. Course planning and calendar**

### **Calendar of face-to-face sessions and presentation of works**

MEDICINE. THIRD COURSE. SEMESTER SIXTH  
PROGRAMMING LARGE GROUPS: BUILDING A

<https://medicina.unizar.es/tercer-curso#horario6>

#### 4.5. Bibliography and recommended resources

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=26771>