

IV year (2nd semester)	Scientific Field	SYSTEMIC PATHOLOGY III	TUTOR	ECTS
ANDREONI M. COORDINATOR	MED/09	Allergology and Clinical Immunology	Greco Elisabetta	1
	MED/17	Infectious Diseases	Andreoni Massimo	2
	MED/17	Infectious Diseases	Sarmati Loredana	1
	MED/15	Blood Diseases	Buccisano Francesco	1
	MED/15	Blood Diseases	Venditti Adriano	1
	MED/15	Blood Diseases	Voso Maria Teresa	1
	MED/16	Rheumatology	Conigliaro Paola	1
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#### SPECIFIC AIMS

The aim of this course is to provide updated information on the most frequent infectious diseases in a way that the student is expected to know:

- 1) principal infectious syndromes;
- 2) diseases caused by the main infectious agents;
- 3) infections in the compromised patient and in the hospitalized one;
- 4) diagnostic methodologies;
- 5) principles of antimicrobial therapy.

Moreover, the course proposes to update the student on hematologic diseases of major clinical and therapeutic relevance.

In particular, considering the most recent biological acquisitions, the course provides adequate knowledge to the student regarding diagnostic procedures and therapeutic approaches to the most common neoplastic hematologic and not.

In conclusion, the aim of the course is to provide information about the immunocompetent system from normal condition to pathology: pathogenic immunoreactions, immunodeficiency, tolerance and autoimmunity, allergy and pseudo-allergy. It will provide notions about diagnostic concepts and modulation principles in order to achieve a therapeutic immune response.

Allergology, Clinical Immunology and Rheumatology courses will provide students with an adequate knowledge for an optimal approach to the patient and capacity suitable for a constructive and equal interaction with the specialist..

**PROGRAM**

**INFECTIOUS DISEASES**

- **CLINICAL SYNDROMES:** localized infections, sepsis and septic shock; Infective endocarditis; Acute infectious enteritis and food poisoning; Infectious hepatitis; Urinary tract infections; Osteomyelitis infectious; Meningitis and meningoencephalitis.
- **BACTERIAL DISEASES :** Pneumococcal pneumonia; gram-negative aerobic bacteria pneumonia; anaerobic bacteria pneumonia; Mycoplasma infections. Pertussis. Diphtheria. Streptococcal infections and metastreptococcal pathology. Staphylococcal infections. Bacterial meningitis (meningococcal M., pneumococcal M., Haemophilus M.). Osteomyelitis. Clostridial diseases (tetanus, botulism, pseudomembranous colitis); Enteric infections (typhoid fever and other salmonellosis; Shigellosis, Cholera; enteritis by Campylobacter, Escherichia coli, Yersinia enterocolitica, Traveler's diarrhea). Anthrax. Actinomycosis. Brucellosis. Cat-scratch disease. Mycobacterial disease (extrapulmonary tuberculosis, leprosy). Spirochetal diseases (leptospirosis, Lyme disease). Chlamydial diseases (trachoma; Psittacosis Ornithosis). Rickettsial diseases (Boutonneuse fever and other arthropod-borne diseases; Q fever).
- **VIRAL DISEASES:** Diseases of the respiratory system (common cold, pharyngitis, laryngitis, croup and bronchitis viral influenza epidemic). Infectious mononucleosis. Cytomegalovirus infection. Herpes simplex virus infection. Varicella-zoster virus infection. Measles. Rubella. Mumps. Viral gastroenteritis. Enterovirus diseases (pleurodynia epidemic; Myocarditis and pericarditis; mucocutaneous syndromes). Retroviral Diseases (HIV infection and related conditions). Overview of arbovirus diseases and infections by prions.
- **FUNGAL DISEASES:** Candidiasis. Cryptococcosis. Pneumocystosis. Aspergillosis. Mycetoma .
- **PROTOZOAL DISEASES:** Malaria. Toxoplasmosis. Amebiasis. Leishmaniasis. Cryptosporidiosis. Trypanosomiasis. Giardiasis.
- **HELMINTHIC DISEASES:** Infections with intestinal tapeworms (Taenia saginata, tapeworm solium) and tissue (echinococcosis). Trematode infections (Schistosomiasis). Intestinal nematode infections (Ancylostomiasis, ascariasis, Enterobiasis, Trichuriasis) and tissue (Filariasis).
- **PRINCIPLES OF THERAPY:** antibacterial, antiviral, antifungal and antiparasitic.

**PROGRAM**

**HEMATOLOGY**

- **HEMATOPOIETIC AND LYMPHOPOIETIC SYSTEM.**
- **DISORDERS OF RED CELLS.**
- **DISORDERS OF WHITE BLOOD CELLS.**
- **ACUTE MYELOID LEUKEMIA.**
- **ACUTE LYMPHOID LEUKEMIA.**
- **MYELODYSPLASTIC SYNDROMES.**

- CHRONIC MYELOID LEUKEMIA.
- PH NEGATIVE MYELOPROLIFERATIVE DISORDERS.
- MULTIPLE MYELOMA.
- AMYLOIDOSIS.
- CHRONIC LYMPHOCYTIC LEUKEMIA.
- HODGKIN LYMPHOMA.
- NON HODGKIN LYMPHOMA.
- NORMAL HEMOSTASIS.
- PLATELET AND BLEEDING DISORDERS.

**PROGRAM**

- ALLERGY AND PSEUDOALLERGY.
- BRONCHIAL ASTHMA.
- ALLERGIC OCULORHINITIS.
- FOOD ALLERGY.
- DRUGS ALLERGY.
- ATOPIC DERMATITIS.

**ALLERGOLOGY**

- URTICARIA-ANGIOEDEMA SYNDROME.
- INSECT STING ALLERGY.
- ANAPHYLAXIS.
- PRINCIPLES OF TREATMENT OF ALLERGIC DISEASES.
- PATHOGEN IMMUNE REACTIONS.
- IMMUNODEFICIENCIES.
- COMPLEMENT DEFICIENCIES.
- INTERACTIONS WITH OTHER SPECIALISTS.
- PRINCIPLES OF TREATMENT OF IMMUNOLOGICAL DISEASES. Update of good news in the literature
- IMMUNE TOLERANCE AND AUTOIMMUNITY.
- THE MOSAIC OF AUTOIMMUNITY.
- CONNECTIVE TISSUE DISEASES AND VASCULITIDES: SLE; Scleroderma; Dermatomyositis and polymyositis; Vasculitides; Sjogren's syndrome; Overlap syndromes; MCTD; APS.
- PRINCIPLES OF TREATMENT OF RHEUMATIC DISEASES.
- UPDATE OF GOOD NEWS IN THE LITERATURE.

## TEXTBOOKS

- HARRISON'S Principles of Internal Medicine. McGraw-Hill;
- Slides from lessons.

## EXAM METHOD

Oral exam.



**EXAM COMMISSION**

The Coordinator, full Professors of the disciplines, Professors of similar disciplines, Specialists of the subject, compose the exam Commission of the Integrated Course.

Andreoni Massimo, President
Sarmati Loredana
Buccisano Francesco
Venditti Adriano
Voso Maria Teresa
Conigliaro Paola
Greco Elisabetta

**CONTACTS**

Buccisano Francesco	francesco.buccisano@uniroma2.it	0620903228
Venditti Adriano	adriano.venditti@uniroma2.it	0620903226
Voso Maria Teresa	voso@med.uniroma2.it	0672596280
Greco Elisabetta	elisabetta_greco@yahoo.it	0620903749
Conigliaro Paola	paolaconigliaro@yahoo.it	0620903749
Andreoni Massimo	andreoni@uniroma2.it	0620903393
Sarmati Loredana	sarmati@med.uniroma2.it	0620902790

PREREQUISITES: Previous knowledge and competence in the following subjects: Human Anatomy1, Human Anatomy 2, Histology and Embryology, Physiology and Pathophysiology, Immunology and Immunopathology, Microbiology, General Pathology, Pharmacology.

The specific learning outcomes of the program are coherent with the general provisions of the Bologna Process and the specific provisions of EC Directive 2005/36/EC. They lie within the European Qualifications Framework (Dublin Descriptors) as follows:

### 1. **Knowledge and Understanding**

- Assess the physiologic principles which govern the function of the lymphoematopoietic and immune systems and the alterations induced by functional and structural abnormalities.
- Highlight the main aspects of haematologic, rheumatologic, allergic and infectious disorders focusing on the etio-pathogenesis, diagnosis and therapy.
- Recognize the risk factors, populations at risk, relieving or exacerbating factors for any specific clinical case.
- Demonstrate knowledge about established and evolving medicine that is critical to the practice of the clinical and surgical interventions.
- Determine the major indications or contraindications for both medical and surgical therapeutic strategies;
- Identify the incidence and epidemiology of infectious diseases in order to understand their impact worldwide as well as in most affected countries.
- Recognize the importance of preventive medicine and emphasize the role of early intervention.
- Analyze a clinical case and provide an exhaustive explanation of the possible diagnostic hypothesis and appropriate therapeutic approaches.

### 2. **Applying Knowledge and Understanding**

- Apply the theoretical knowledge to the clinical setting, being able to recognize the general diagnostic aspects of the diseases.
- Evaluate the patient, emphasizing the findings obtained from the history, physical examination, and instrumental tests. If the mechanisms underlying these findings can be identified, the correct etiologic, anatomic, and physiologic diagnoses can usually be deduced.
- Predict a differential diagnosis based on given clinical data and provide a suitable explanations of the underlying reasonings.
- Learn to interpret appropriate epidemiologic, laboratory and diagnostic studies.
- Learn the practical aspects of the investigation tests and how to perform them.

### 3. **Making Judgements**

- Recognize the importance of an in-depth knowledge of the topics consistent with a proper medical education.
- Identify the benefits and adverse effects of any diagnostic and therapeutic interventions.

### 4. **Communication Skills**

- Present the topics orally in an organized and consistent manner.
- Use of proper scientific language coherent with the topic of discussion.

5. **Learning Skills**

- Identify the possible use of the acknowledged skills in the future career.
- Assess the importance of the acquired knowledge in the overall medical education process.