

CdS Medicine and Surgery

4th year (2nd semester)
A.Y. 2026-27

COD:	Scientific Field: SYSTEMIC PATHOLOGY III	TUTOR - Docente	ECTS -CFU
	Modules		
MED/09	Allergology and Clinical Immunology	Greco Elisabetta	1
MED/17	Infectious Diseases	Sarmati Loredana	1
MED/17	Infectious Diseases	Geretti Anna Maria	1
MED/17	Infectious Diseases	Iannetta Marco	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
		TOT	8

COORDINATOR-Coordinatore:

SARMATI LOREDANA

SPECIFIC AIMS :

EN: This integrated course comprises four main disciplines: Infectious Diseases, Blood Diseases, Allergology and Clinical Immunology, and Rheumatology.

Infectious Diseases

The aim of this module is to provide up-to-date knowledge on the most common infectious diseases. The specific learning objectives are:

- 1) Understanding the main infectious syndromes.
- 2) Recognition of diseases caused by major infectious agents.
- 3) Awareness of infections in immunocompromised patients and healthcare-associated infections.
- 4) Familiarity with diagnostic methodologies.
- 5) Fundamental principles of antimicrobial therapy.

Hematology

This part of the course aims to update students on hematologic diseases of major clinical and therapeutic relevance.

In particular, building on recent biological advances, it provides comprehensive knowledge of diagnostic procedures and therapeutic strategies for both neoplastic and non-neoplastic hematologic conditions.

Allergology, Clinical Immunology, and Rheumatology

The third section of the course focuses on the immune system, from physiological function to pathological conditions. Topics include pathogenic immunoreactions, immunodeficiencies, immune tolerance, autoimmunity, allergy, and pseudo-allergy. Students will gain essential knowledge of diagnostic approaches and immunomodulatory strategies aimed at achieving therapeutic immune

OBIETTIVI FORMATIVI:

responses. This section also aims to equip students with the clinical knowledge and interpersonal skills necessary for an effective and balanced collaboration with specialists, ensuring optimal approach to patient care.

IT: Questo corso integrato comprende quattro discipline principali: Malattie Infettive, Malattie del Sangue, Allergologia e Immunologia Clinica e Reumatologia.

Malattie Infettive

L'obiettivo di questo modulo è fornire conoscenze aggiornate sulle malattie infettive più comuni. Gli obiettivi formativi specifici sono:

- 1) Comprendere le principali sindromi infettive.
- 2) Riconoscere le patologie causate dai principali agenti infettivi.
- 3) Conoscere le infezioni nei pazienti immunocompromessi e quelle correlate all'assistenza sanitaria.
- 4) Acquisire familiarità con le metodologie diagnostiche.
- 5) Apprendere i principi fondamentali della terapia antimicrobica.

Ematologia

Questa parte del corso mira ad aggiornare gli studenti sulle malattie ematologiche di maggiore rilevanza clinica e terapeutica. In particolare, basandosi sui recenti progressi biologici, fornisce una conoscenza completa delle procedure diagnostiche e delle strategie terapeutiche per le patologie ematologiche, sia neoplastiche che non neoplastiche.

Allergologia, Immunologia Clinica e Reumatologia

La terza sezione del corso si concentra sul sistema immunitario, dalla funzione fisiologica alle condizioni patologiche. Gli argomenti includono le immunoreazioni patogene, le immunodeficienze, la tolleranza immunitaria, l'autoimmunità, l'allergia e la pseudo-allergia. Gli studenti acquisiranno le conoscenze essenziali sugli approcci diagnostici e sulle strategie immunomodulatorie volte a ottenere risposte immunitarie terapeutiche. Questa sezione mira inoltre a fornire agli studenti le conoscenze cliniche e le abilità interpersonali necessarie per una collaborazione efficace ed equilibrata con gli specialisti, garantendo un approccio ottimale alla cura del paziente.

PROGRAM - PROGRAMMA

EN:

CLINICAL SYNDROMES: localized infections. Sepsis and septic shock. Infective endocarditis. Acute infectious enteritis and food poisoning. Infectious hepatitis. Urinary tract infections. Infectious osteomyelitis. Meningitis and meningoencephalitis.

BACTERIAL DISEASES: Pneumonia caused by *Streptococcus pneumoniae*; gram-negative aerobic bacteria, anaerobic bacteria, and *Mycoplasma*. Pertussis. Diphtheria. Streptococcal infections and post-streptococcal complications. Staphylococcal infections.

Bacterial meningitis (meningococcal, pneumococcal, *Haemophilus influenzae*.). Osteomyelitis. Clostridial infections (tetanus, botulism, pseudomembranous colitis). Enteric infections: typhoid fever and other *Salmonella* infections, shigellosis.

Cholera, enteritis caused by *Campylobacter*, *Escherichia coli*, *Yersinia enterocolitica*, and traveler's diarrhea).

Anthrax. Actinomycosis. Brucellosis. Cat-scratch disease. Mycobacterial infections (extrapulmonary tuberculosis, leprosy).

Spirochetal diseases (leptospirosis, Lyme disease). Chlamydial infections (trachoma, psittacosis, ornithosis). Rickettsial diseases (Mediterranean spotted fever and other arthropod-borne diseases, Q fever).

VIRAL DISEASES: Respiratory viral infections (common cold, pharyngitis, laryngitis, croup and bronchitis, epidemic influenza).

Infectious mononucleosis. Cytomegalovirus (CMV) infection. Herpes simplex virus (HSV) infection. Varicella-zoster virus (VZV)

Module/o INFECTIOUS DISEASES

infection. Measles. Rubella. Mumps. Viral gastroenteritis. Enteroviral infections (epidemic pleurodynia, myocarditis and pericarditis, mucocutaneous syndromes). Retroviral Diseases (HIV infection and related conditions). Overview of arboviral diseases and prion-related infections.

- FUNGAL DISEASES: Candidiasis. Cryptococcosis. Pneumocystosis. Aspergillosis. Mycetoma.
- PROTOZOAL DISEASES: Malaria. Toxoplasmosis. Amebiasis. Leishmaniasis. Cryptosporidiosis. Trypanosomiasis. Giardiasis.
- HELMINTHIC DISEASES: Intestinal tapeworms infections (Taenia saginata, Taenia solium) and tissue infections (echinococcosis). Trematode infections (schistosomiasis). Intestinal nematode infections (Ancylostomiasis, ascariasis, enterobiasis, trichuriasis) and Tissue infections (Filariasis).
- PRINCIPLES OF THERAPY: antibacterial, antiviral, antifungal and antiparasitic treatment strategies

IT:

SINDROMI CLINICHE: infezioni localizzate. Sepsis e shock settico. Endocardite infettiva. Enterite infettiva acuta e intossicazione alimentare. Epatite infettiva. Infezioni delle vie urinarie. Osteomielite infettiva. Meningite e meningoencefalite.

MALATTIE BATTERICHE: Polmonite causata da Streptococcus pneumoniae; batteri aerobici gram-negativi, batteri anaerobici e Mycoplasma. Pertosse. Difterite. Infezioni da streptococco e complicanze post-streptococciche. Infezioni da stafilococco. Meningite batterica (meningococcica, pneumococcica, da Haemophilus influenzae). Osteomielite. Infezioni da clostridi (tetano, botulismo, colite pseudomembranosa). Infezioni enteriche: febbre tifoide e altre infezioni da Salmonella, shigellosi. Colera, enterite causata da Campylobacter, Escherichia coli, Yersinia enterocolitica e diarrea del viaggiatore. Antrace. Actinomicosi. Brucellosi. Malattia da graffio di gatto. Infezioni micobatteriche (tubercolosi extrapolmonare, lebbra). Malattie da spirochete (leptosirosi, malattia di Lyme). Infezioni da clamidia (tracoma, psittacosi, ornitosi). Rickettsiosi (febbre bottonosa del Mediterraneo e altre malattie trasmesse da artropodi, febbre Q).

MALATTIE VIRALI: Infezioni respiratorie virali (raffreddore comune, faringite, laringite, croup e bronchite, influenza epidemica). Mononucleosi infettiva. Infezione da citomegalovirus (CMV). Infezione da virus herpes simplex (HSV). Infezione da virus varicella-zoster (VZV). Morbillo. Rosolia. Parotite (orecchioni). Gastroenterite virale. Infezioni da enterovirus (pleurodinia epidemica, miocardite e pericardite, sindromi mucocutanee). Malattie retrovirali (infezione da HIV e condizioni correlate). Panoramica sulle malattie da arbovirus e infezioni da prioni.

MALATTIE FUNGINE (MICOSI): Candidosi. Criptococcosi. Pneumocistosi. Aspergillosi. Micetoma.

MALATTIE DA PROTOZOI: Malaria. Toxoplasmosi. Amebiasi. Leishmaniosi. Criptosporidiosi. Tripanosomiasi. Giardiasi.

MALATTIE DA ELMINTI: Infezioni intestinali da tenia (Taenia saginata, Taenia solium) e infezioni tissutali (echinococcosi). Infezioni da trematodi (schistosomiasi). Infezioni intestinali da nematodi (anchilostomiasi, ascariasi, enterobiasi, trichuriasi) e infezioni tissutali (filariasi).

PRINCIPI DI TERAPIA: strategie di trattamento antibatterico, antivirale, antifungino e antiparassitario.

PROGRAM- PROGRAMMA

EN:

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

Modul/o HEMATOLOGY

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

IT:

- SISTEMA EMOPOIETICO E LINFOPOIETICO.
- PATOLOGIE DEI GLOBULI ROSSI.
- PATOLOGIE DEI GLOBULI BIANCHI.
- LEUCEMIA MIELOIDE ACUTA.
- LEUCEMIA LINFOBLASTICA ACUTA.
- SINDROMI MIELODISPLASTICHE.
- LEUCEMIA MIELOIDE CRONICA.
- MALATTIE MIELOPROLIFERATIVE PH-NEGATIVE (PHILADELPHIA NEGATIVE).
- MIELOMA MULTIPLO.
- AMILOIDOSI.
- LEUCEMIA LINFATICA CRONICA.
- LINFOMA DI HODGKIN.
- LINFOMA NON-HODGKIN.
- EMOSTASI NORMALE.
- PATOLOGIE DELLE PIASTRINE E DELLA COAGULAZIONE.

PROGRAM- PROGRAMMA

EN:

- ALLERGY AND PSEUDOALLERGY.
- BRONCHIAL ASTHMA.
- ALLERGIC OCULORHINITIS.
- FOOD ALLERGY.
- DRUGS ALLERGY.
- ATOPIC DERMATITIS.
- URTICARIA-ANGIOEDEMA SYNDROME.
- INSECT STING ALLERGY.
- ANAPHYLAXIS.
- PRINCIPLES OF TREATMENT OF ALLERGIC DISEASES.
- PATHOGEN IMMUNE REACTIONS.
- IMMUNODEFICIENCIES.
- COMPLEMENT DEFICIENCIES.

Modul/o ALLERGOLOGY AND
CLINICAL IMMUNOLOGY
/RHEUMATOLOGY

- INTERACTIONS WITH OTHER SPECIALISTS.
- PRINCIPLES OF TRATMENT 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.

IT:

- ALLERGIA E PSEUDOALLERGIA.
- ASMA BRONCHIALE.
- OCULORINITE ALLERGICA.
- ALLERGIA ALIMENTARE.
- ALLERGIA AI FARMACI.
- DERMATITE ATOPICA.
- SINDROME ORTICARIA-ANGIOEDEMA.
- ALLERGIA ALLE PUNTURE DI INSETTI.
- ANAFILASSI.
- PRINCIPI DI TRATTAMENTO DELLE MALATTIE ALLERGICHE.
- REAZIONI IMMUNITARIE PATOGENE.
- IMMUNODEFICIENZE.
- DEFICIT DEL COMPLEMENTO.
- INTERAZIONI CON ALTRI SPECIALISTI.
- PRINCIPI DI TRATTAMENTO DELLE MALATTIE IMMUNOLOGICHE. AGGIORNAMENTI SULLE ULTIME NOVITÀ IN - LETTERATURA.
- TOLLERANZA IMMUNITARIA E AUTOIMMUNITÀ.
- IL MOSAICO DELL'AUTOIMMUNITÀ.
- CONNETTIVITI E VASCULITI: LES (LUPUS ERITEMATOSO SISTEMICO); SCLERODERMIA; DERMATOMIOSITE E POLIMIOSITE; VASCULITI; SINDROME DI SJÖGREN; SINDROMI DA SOVRAPPOSIZIONE (OVERLAP); MCTD (CONNETTIVITE MISTA); APS (SINDROME DA ANTICORPI ANTIFOSFOLIPIDI).
- PRINCIPI DI TRATTAMENTO DELLE MALATTIE REUMATICHE.
- AGGIORNAMENTI SULLE ULTIME NOVITÀ IN LETTERATURA.

TEXTBOOKS	EN: - HARRISON'S Principles of Internal Medicine. McGraw-Hill; - Slides from lessons.
TESTI DI RIFERIMENTO	IT: HARRISON - Principi di Medicina Interna. McGraw-Hill; Slide delle lezioni.

TEACHING METHODS	EN: The course is delivered through frontal lectures, interactive clinical case discussions, specialized seminars, and practical clinical clerkships
METODI DIDATTICI	IT: Il corso si svolge attraverso lezioni frontali, discussioni interattive di casi clinici, seminari specialistici e tirocini clinici pratici

EXAM METHODS	EN: Examination Format: Oral exam upon completion of the course.
MODALITA' DI VALUTAZIONE	IT: Esame orale al termine del corso.



EXAM COMMISSION	EN: The Examining Committee is composed of the Coordinator, professors from the specific and related disciplines, and subject matter experts. IT: "La Commissione d'esame del Corso Integrato è composta dal Coordinatore, dai professori ordinari delle discipline, dai professori di materie affini e dai cultori della materia."
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Sarmati Loredana, President
Buccisano Francesco
Venditti Adriano
Voso Maria Teresa
Conigliaro Paola
Greco Elisabetta
Geretti Anna Maria
Iannetta Marco

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PREREQUISITES-PREREQUISITI

EN:

Prerequisites include foundational knowledge and competencies in the following subjects: Human Anatomy 1 and 2, Histology and Embryology, Physiology and Pathophysiology, Immunology and Immunopathology, Microbiology, General Pathology, and Pharmacology

IT:

I prerequisiti comprendono conoscenze e competenze fondamentali nelle seguenti materie: Anatomia Umana 1 e 2, Istologia ed Embriologia, Fisiologia e Fisiopatologia, Immunologia e Immunopatologia, Microbiologia, Patologia Generale e Farmacologia."

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 hematologic, rheumatologic, allergic and infectious disorders focusing on the etiopathogenesis, 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 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.