

BSc in Physiotherapy

INTEGRATED COURSE TITLE: GERIATRICS

NUMBER OF ECTS CREDITS: 5

SSD : MEDS-05/A, MEDS-09/C, MEDS-13/B, MEDS-14/C, MEDS-19/A

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MODULE: INTERNAL MEDICINE

NUMBER OF ECTS CREDITS: 1

SSD : MEDS-05/A

PROFESSOR : [NICOLA VERONESE](#)

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MODULE: RHEUMATOLOGY

NUMBER OF ECTS CREDITS: 1

SSD : MEDS-09/C

PROFESSOR : [GIUSEPPE SCONOCCHIA](#)

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MODULE: VASCULAR SURGERY

NUMBER OF ECTS CREDITS: 1

SSD : MEDS-13/B

PROFESSOR : [ALESSANDRO BELLISARIO](#)

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MODULE: UROLOGY NUMBER

OF ECTS CREDITS: 1

SSD : MEDS14/C

PROFESSOR : [MICHELE GALLUCCI](#)

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MODULE: LOCOMOTIVE SYSTEM DISEASES NUMBER OF

ECTS CREDITS: 1

SSD : MEDS-19/A

PROFESSOR : [MATTEO GUZZINI](#)

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PREREQUISITES

Although there are no preparatory qualifications, a good knowledge of human anatomy and physiology is necessary, in particular of biomechanics and joint physiology applied to the musculoskeletal system, the urinary and male genital systems. It is also necessary to possess notions of cellular biology, genetics, general pathology, the basic concepts of the innate and antigen-specific immune response, the basis of autoimmunity and inflammation.

LEARNING OBJECTIVES

The essential objectives are knowledge of common rheumatic diseases, rheumatic diseases that require emergency treatment, rheumatic diseases that are socially relevant in terms of spread and costs, recognizing the signs and symptoms associated with rheumatic diseases for the purposes of general diagnostic orientation and having awareness the meaning of red flags in rheumatology; know how to evaluate the results of the most indicative laboratory parameters in the diagnostic process of rheumatic diseases, know the correct use of imaging in rheumatology (X-rays, ultrasound, magnetic resonance imaging,

computed tomography, scintigraphy).

The Vascular Surgery course aims to introduce the student to the basic knowledge of the various pathologies of the vascular system.

Internal medicine includes the study of the main non-communicable diseases and clinical methodology.

The urology course will provide the main notions of anatomy, physiology and pathophysiology of the male urinary and genital system, knowledge of the devices commonly used in urological patients and the description of the assistance aimed at the person with urological pathology who requires rehabilitative physiotherapy. It will also help to develop diagnostic reasoning and care planning, referring to scientific evidence, in relation to physiotherapy assistance in the post-operative phases of the main urological interventions.

Knowledge of orthopedic diseases and traumas of the musculoskeletal system are essential objectives of the orthopedics course.

It is essential to recognize the signs and symptoms associated with orthopedic diseases and traumas for the purposes of general diagnostic orientation and to be aware of the meaning of the guidelines in orthopedics and traumatology; know the correct use of imaging in orthopedics and traumatology (X-rays, ultrasound, magnetic resonance imaging, computed tomography, scintigraphy).

Knowledge of the pathogenesis of orthopedic pathologies and skeletal trauma is considered of fundamental importance to frame and make students understand the various therapeutic possibilities available to them.

LEARNING OUTCOMES

Knowledge and Understanding

At the end of the course the student will be able to:

- Know and explain the basics of clinical methodology
- Know and explain the global burden of diseases
- Know and explain cardiovascular diseases
- Know and explain cerebri stroke
- Know and explain Obstructive Pulmonary Disease (COPD)
- Know and explain Diabetes
- Know the general mechanisms of innate and acquired immunity
- Know the main signs and symptoms and laboratory parameters in rheumatic diseases.
- Know the imaging techniques in Rheumatology.
- Know the classification criteria for rheumatic diseases.
- Know about inflammatory arthritis
- Know extra-articular rheumatism
- Know the main connective tissue diseases
- Outline pharmacological, rehabilitative and thermal therapeutic strategies in rheumatic diseases
- Know the general and systematic pathology of the vascular system
- Distinguish the main diagnostic methods in current use.
- Know the various therapeutic approaches.
- Know the main notions of the anatomy, physiology and pathophysiology of the male urinary and genital system
- Know how to recognize the main urological and male genital pathologies
- Know the main urological surgical procedures and, consequently, have knowledge of post-operative physiotherapy management
- Know the devices commonly used in urological patients (urostomies, catheters, drainage etc..)

- The main signs, symptoms and laboratory parameters in orthopedic diseases
- The main signs and symptoms in traumatic musculoskeletal injuries
- Imaging techniques in orthopedics and traumatic musculoskeletal injuries
- The classification criteria of the main orthopedic diseases and traumatic musculoskeletal injuries
- How to outline pharmacological, surgical and rehabilitative therapeutic strategies in orthopedic diseases and musculoskeletal injuries

Applying knowledge and understanding

At the end of the course the student will be able to perform a basic assessment of the patient with chronic diseases and make decisions regarding the diagnosis, treatment and monitoring of the patient's condition in order to improve clinical outcomes at significantly reduced costs. He will be able to use the knowledge acquired to be able to recognize the main urological pathologies and manage them from a physiotherapy point of view in a hospital environment (inpatient ward), long-term care and home care. More generally, they will be able to use the knowledge acquired for the independent study of aspects relating to the specific field to which the student will dedicate themselves in the context of their professional activity.

Communication skills

At the end of the course the student will have to know how to use specific scientific terminology appropriately.

Making judgements

At the end of the course the student will be able to make general assessments relating to the topics covered.

Learning Skills

The student will have acquired skills and learning methods suitable for deepening and improving their knowledge and skills in the subjects covered by integrated teaching, also through consultation of scientific literature.

COURSE SYLLABUS

Syllabus Internal Medicine

- Medical history and physical examination
- Pathophysiology of the main chronic conditions
- Chest pain (acute coronary syndromes, non-cardiological chest pain)
- Dyspnea (pneumonia, pleural effusion, pulmonary embolism, COPD, asthma) and cyanosis; interpretation of blood gas analysis
- Arterial hypertension
- Diabetes mellitus and glycemic emergencies
- Fever
- Acute and chronic renal failure
- Anemia

Syllabus Rheumatology

INTRODUCTION • Immunity and autoimmunity • Signs and symptoms of rheumatic diseases, laboratory tests • Imaging in Rheumatology • Classification of Rheumatic diseases; ARTHRITIS • Osteoarthritis and low-back pain • Inflammatory arthritis • Microcrystal arthritis, infectious arthritis • Spondylarthritis including enteropathic spondylarthritis • Rheumatoid arthritis;

EXTRA-ARTICULAR RHEUMATISMS • Osteoporosis • Fibromyalgia • Localized muscle-tendon diseases: enthesopathy, tenosynovitis • Neurological and neurovascular diseases: root compression neuropathies, algodystrophy;

CONNECTIVE TISSUE DISEASES • Systemic lupus erythematosus, antiphospholipid syndrome, polymyositis dermatomyositis, systemic sclerosis, Sjogren syndrome, mixed connective tissue disease • Miscellaneous, Vasculitis and polymyalgia rheumatica;

OUTLINE OF THERAPY: drugs, thermal and rehabilitation therapy in rheumatic diseases

Syllabus Vascular Surgery

The first part of the course will introduce the anatomy and physiology of the vascular system. In the second part of the course the various pathologies of the arterial and venous vascular system will be addressed. In the final part of the course clinical cases and relative treatment will be exemplified.

Syllabus Urology

Bases of anatomy of the urogenital apparatus and physiology of urination. Semi-ototic bases of the urogenital system

Symptoms and dysfunctions of the low urinary tract (retention and urinary incontinence) Pelvic floor rehabilitation therapy

Main characteristics of tumors of the urogenital system and postoperative rehabilitation Bladder catheterization and other urinary drainages

Syllabus Locomotive System Diseases

Anatomy of the musculoskeletal system, orthopedic terminology.

Fractures in the elderly, fractures in the pediatric age group. Sprains and contusion injuries. Main sports injuries of the upper limb and general principles of cartilage lesions.

Main pathologies of the upper limb, main degenerative and acute disorders of the hand and wrist: general concepts, pathophysiology, clinical features, diagnostic tests, therapeutic principles, early and late complications, principles of reconstructive microsurgery.

COURSE STRUCTURE

The teaching is structured in 50 hours of frontal teaching, divided into 2, 3 or 4 hour lessons based on the academic calendar. The frontal teaching includes theoretical lessons and supplementary seminars on the topics covered.

COURSE GRADE DETERMINATION

The assessment of preparation will take place through an oral examination, during which the Examining Committee will evaluate the students' ability to apply their knowledge and ensure that their competencies are adequate to address and solve problems in the fields of rheumatology, orthopedics, vascular medicine, urology, and internal medicine.

In addition, the following will be assessed: autonomy of judgment (making judgements), communication skills, and learning skills, in accordance with the Dublin Descriptors.

The final grade will be determined collectively by the Committee, taking into account the results of the various modules.

READING MATERIALS

INTERNAL MEDICINE

Kaspi, Haucer, Fauci, Longo, Jameson, Lo Scalzo. *Harrisons Manual of Medicine, 21th Edition (Harrison's Manual of Medicine)* (English Edition)

Available also the Pocket Manual

McGraw-Hill Education / Medical; 21th Edition (2022)

Raffaele Antonelli Incalzi. *Medicina Interna per Scienze Infermieristiche*

Piccin Editore (2012)

ISBN- 978-88-299-2114-0

Teaching material provided by the teacher during the lessons RHEUMATOLOGY

- Rheumatology, Evidence-Based Practice for Physiotherapists and Occupational Therapists. Dziedzic & Hammond. Elsevier - Churchill Livingstone, 2010
- Unireuma - Reumatologia per studenti e medici di medicina generale. Valesini et al. Ed. Idelson Gnocchi, 2018

Walk-in appointments will be offered on Mondays from 9:30a.m. - 12:30 a.m., ground floor, Students' Counseling Office.

VASCULAR SURGERY

1) Lecture notes

2) Vascular and Endovascular Surgery, 6th Edition, Ian Loftus & Robert Hinchliffe, Elsevier

UROLOGY

- Lise M. *Chirurgia per le professioni sanitarie*. Padova: Ed.Piccin, Edizione IV, 2006, Volume 2
- *Urologia, Cosa sapere di*, Bassi P, 2006, Cortina Editore, Padova
- *Manuale di Urologia e Andrologia*, a cura del Collegio dei Professori di Urologia, 2010, Pacini Editore
- *Evidence-Based Physical Therapy for the Pelvic Floor. 2nd Edition Bridging Science and Clinical Practice*. Kari Bo Bary Berghmans Siv Morkved Marijke Van Kampen.Churchill Livingstone

LOCOMOTIVE SYSTEM DISEASES

- Mark D Miller, Jennifer A Hart, John M. MacKnight .*Essential Orthopaedics*. Saunders Elsevier (2010)
- Jon C. Thompson: *Netter's Concise Orthopaedic Anatomy*, Elsevier (2016).