

## Degree Course Degree in Fisiotherapy

### **Integrated Course: GERIATRICS**

**CFU: 5**

**SSD: MED/22, MED/33, MED/16, MED/09, MED/24**

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### **MODULE : VASCULAR SURGERY**

**CFU: 1**

**SSD: MED/22**

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### **MODULE: LOCOMOTIVE SYSTEM DISEASES**

**CFU: 1**

**SSD: MED/33**

**Professor: ROBERTO PADUA**

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### **MODULE: RHEUMATOLOGY**

**CFU: 1**

**SSD: MED/16**

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### **MODULE: INTERNAL MEDICINE**

**CFU: 1**

**SSD: MED/09**

**Professor: FILOMENA PIETRANTONIO**

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### **MODULE: UROLOGY**

**CFU: 1**

**SSD: MED/24**

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### **PREREQUISITES**

#### **VASCULAR SURGERY**

Although there are no preparatory requirements, previous knowledge of basic anatomy and physiology is required

#### **LOCOMOTIVE SYSTEM DIDEASES**

The student needs to have knowledge of musculoskeletal anatomy and basic concepts of joint and muscle physiology. For the study of the specific radiological field, the student need knowledge of the basics of Orthopedics semeiotics.

#### **RHEUMATOLOGY**

Although there are no preparatory prerequisites, notions of genetics, epigenetics and general

pathology and the basic concepts of innate and acquired immune response and the basics of autoimmunity and inflammation are necessary. It is also necessary to have a good basic knowledge of human anatomy and physiology in particular of the musculoskeletal system.

### INTERNAL MEDICINE

For a proper understanding, the student should have, but is not strictly mandatory, basic knowledge of cell biology, biochemistry, physiology and anatomy.

### UROLOGY

Basic notions of anatomy and physiology of the male urinary and genital apparatus are needed, but these will be taken up and deepened during the lessons.

## **LEARNING OBJECTIVES**

### VASCULAR SURGERY

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

### LOCOMOTIVE SYSTEM DISEASES

The educational goal of teaching are aimed at providing students with the necessary knowledge of orthopedic and traumatological pathology in adult and childhood with particular attention to degenerative and traumatic joints lesions (shoulder, elbow, hip, knee, ankle, etc.). For each pathological condition the classification criteria, the main clinical signs, the clinical tests and the imaging examinations for the definition of the pathology will be described.

### RHEUMATOLOGY

Learning objective is the knowledge of common rheumatic diseases, of those rheumatic diseases that involve an emergency treatment, of socially relevant rheumatic diseases; recognition of symptoms and signs associated with rheumatic diseases; knowledge of the meaning red flags in rheumatology; to be able to evaluate the results of the most indicative laboratory parameters in the diagnostic iter of rheumatic diseases; knowledge of the correct use of imaging in rheumatology (X-rays, ultrasounds, magnetic resonance, computerized tomography, scintigraphy). These objectives will be achieved through lectures aimed at improving the ability to address and resolve the main issues of Rheumatology field.

### INTERNAL MEDICINE

For a proper understanding, the student should have, but is not strictly mandatory, basic knowledge of cell biology, biochemistry, physiology and anatomy.

### UROLOGY

At the end of the course the student must be able to: Provide the main concepts of anatomy, physiology and pathophysiology of the male urinary and genital apparatus

- Know the devices of common use in urological patients and describe the assistance given to the person with urology pathology who needs rehabilitative physiotherapy.

- 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

## **LEARNING OUTCOMES**

### **VASCULAR SURGERY**

#### **Knowledge and understanding**

At the end of this course the student will need to:

- Know the general and systematic pathology of the vascular system
- Distinguish the main diagnostic methods in current use.
- Know the various therapeutic approaches.

#### **Applying knowledge and understanding**

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

- Use the knowledge acquired for an in-depth study of aspects relating to the specific field to which the student will dedicate himself in the context of his professional activity;
- Particular emphasis will be given to semeiotic reasoning and differential diagnostic framing

#### **Communication skills**

At the end of the course the student must:

- Use specific scientific terminology appropriately.
- Understand the specific nomenclature of vascular pathology

#### **Making judgements**

At the end of the course the student must:

- make general assessments of the topics covered.
- distinguish vascular pathologies by degree of urgency

### **LOCOMOTIVE SYSTEM DISEASES**

At the end of the teaching the student must have the knowledge and understanding in:

Recognize a bone fracture on an x-ray

Recognize an articulation affected by osteoarthritis

Recognize an oncological lesion of a bone

Recognize a deviation of the spine

Know the most appropriate clinical examination to diagnose an orthopedic disease

### **RHEUMATOLOGY**

#### **Knowledge and understanding**

At the end of this teaching the student will have to know:

- 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 of rheumatic diseases.
- Know the inflammatory arthritis

- Know the extra-articular rheumatism
- Know the main diseases of the connective tissue
- To outline pharmacological, rehabilitative and thermal therapeutic strategies in rheumatic diseases

### **Ability to apply knowledge and understanding**

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

- Use the knowledge acquired for the autonomous deepening of aspects related to the specific field to which the student will dedicate himself in the professional activity;

### **Communication skills**

At the end of the course, the student must know:

- Use specific scientific terminology appropriately.

### **Making judgments**

At the end of the course, the student must know:

- carry out general evaluations relating to the topics covered.

## INTERNAL MEDICINE

### **Knowledge and understanding**

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

- Know and explain the basis of clinical methodology
- Know and explain the global burden of diseases
- Know and explain cardiovascular diseases
- Know and explain the basis of the stroke
- Know and explain Pulmonary Obstructive Disease (COPD)
- Know and explain Diabetes.

### **Applying knowledge and understanding**

At the end of the teaching the student will be able to cooperate with other healthcare providers in making decisions regarding diagnosis, treatment, and monitoring patient's conditions using laboratory testings in order to improve clinical outcomes at a greatly reduced costs.

### **Communication skills**

At the end of the teaching the student will be able to use scientific terminology, specific for the the Internal Medicine and in the field of clinical research.

### **Making judgements**

At the end of the course, the student must be able to carry out a rough assessment of the topics covered in Internal Medicine.

## UROLOGY

### **Knowledge and understanding**

- At the end of this teaching the student will need to know: Know the main concepts of anatomy, physiology and pathophysiology of the male urinary and genital apparatus
- Knowing how to recognize the main male urological and genital pathologies, in particular

- Know the main urological surgical procedures and, consequently, have notions on post-operative physiotherapy management
- Know the devices of common use in urological patients (urostomies, catheters, drainages etc.)

### **Applying knowledge and understanding**

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

- Use the acquired knowledge to be able to recognize the main urological pathologies and manage them from a physiotherapy assistance point of view in a hospital environment (inpatient ward), long-term care and home care.

### **Communication skills**

At the end of the course the student must know:

- Use the acquired knowledge and specific scientific terminology for any training courses, Masters or other

### **Making judgements**

At the end of the course the student must know:

- Carry out rough assessments of the topics covered

## **COURSE 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.

### **LOCOMOTIVE SYSTEM DISEASES**

- Introduction to musculoskeletal disease
  - Bone lesion
  - Muscle lesion
  - Capsuloligamentous injuries
- Traumatic pathology
  - Fractures
  - Dislocations
  - Sprain
- Shoulder pathology
- Pathology of the knee
- Hip pathology
- Foot pathology
- Spine disease
- Pediatric pathology
- Outlines of oncological pathology

## 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 Anchylosing spondylitis, psoriatic arthritis and 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

## INTERNAL MEDICINE

Introduction to Non Communicable Diseases and clinical methodology

Global burden of diseases

Cardiovascular diseases with particular attention to prevention programs

The pathophysiological bases of stroke cerebri, risk factors and clinical pictures

Respiratory Failure and Pulmonary Obstructive Disease (COPD)

The bases of metabolic diseases with particular reference to Diabetes Mellitus

## UROLOGY

- Bases of anatomy of the urogenital apparatus and physiology of urination.
- Semeiotic 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

## COURSE STRUCTURE

### VASCULAR SURGERY

The Teaching is structured in XX hours of frontal teaching, divided into 2-hour lessons based on the academic calendar. Lectures will include theoretical lessons and supplementary seminars on the covered topics.

During the lectures the topics contained in the module program will be illustrated and commented.

At the end of the theoretic lessons, clinical cases will follow.

### LOCOMOTIVE SYSTEM DIDEASES

The teaching is structured in 10 hours of frontal teaching, divided into 2 hours lessons according to the academic calendar. The frontal teaching will be theoretical lessons, practical lessons on model and supplementary seminars on particular topics.

### RHEUMATOLOGY

The Course is structured in 10 hours of frontal teaching, divided into lessons of 2, 4 or 5 hours according to the academic calendar.

### INTERNAL MEDICINE

Lectures, presentation and interactive discussion of clinical scenarios, cooperative learning.

### UROLOGY

The course includes 10 hours of lectures, divided into 2 or 4 hour lessons based on the academic calendar.

## **COURSE GRADE DETERMINATION**

### VASCULAR SURGERY

The assessment of the achievement of the objectives set by the module includes an oral test, consisting mainly of open-ended questions on topics covered in the course. In this way, it will be ascertained the student's knowledge and understanding of both the theoretical principles and their consequences in the clinical field.

### LOCOMOTIVE SYSTEM DISEASES

The check of the preparation of the students will take place with a small written exam followed from an oral test. The written test will consist of 10 questions with answers to multiple choice, for each correct answer a point will be assigned. The score final of the written test will be given by the sum of the partially assigned certificates correctly answer each question. To access all the same oral lo student must have totaled at least a minimum of 6 points. During the oral exam, will be evaluate the capacity by the Student to apply the knowledge and will ensure that the skills are adequate to support and solve physiotherapy problems. They will also be assessed: autonomy of judgment, communication skills and learning skills according to what indicated in the Dublin descriptors.

### RHEUMATOLOGY

The verification of the preparation of the students will take place through an oral test. During the oral examination the Examining Commission will assess the ability of the Student to apply the knowledge and will ensure that the skills are adequate to support and solve problems of a rheumatological nature. The following will also be assessed: making judgments, communication skills (communication skills) and learning skills (learning skills) as indicated in the Dublin descriptors.

### INTERNAL MEDICINE

The evaluation of learning will be expressed in 30/30 divided as follows:

10/30 points for the personal elaboration

20/30 points for the oral examination

The evaluation will take into account:

- Knowledge and skills acquired during the course
- Active participation during lectures, clinical case simulations and cooperative learning done in the

classroom

- Ability to re-elaborate the acquired knowledge in a personal and critical way
- Expressive properties of use, in particular, of specialized terminology.

### UROLOGY

The verification of the preparation of the students includes a written test of admission to the oral exam, with 30 multiple choice questions and / or open questions. For each correct answer 1 point will be assigned. Students with an assessment equal to or greater than 18/30 will be admitted to the oral examination. During the oral exam, the examining commission will assess the student's ability to apply the knowledge and will ensure that the skills are adequate to manage problems of a urological nature.

### **OPTIONAL ACTIVITIES**

#### VASCULAR SURGERY

Integrative practical teaching activity with seminars will be communicated and planned during the course.

#### LOCOMOTIVE SYSTEM DISEASES

In addition to the teaching activity, the student will be given the opportunity to participate a Seminars and demonstrations on mannequin. The topics of the activities are not subject to examination.

### **READING MATERIALS**

#### VASCULAR SURGERY

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

#### LOCOMOTIVE SYSTEM DISEASES

Greene Walter . "Netter's Orthopaedics" Elsevier - Health Sciences Division, United States (2006) ISBN 10: 1929007027 ISBN 13: 9781929007028

#### 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

#### INTERNAL MEDICINE

Kaspi, Haucer, Fauci, Longo, Jameson, Lo Scalzo. Harrisons Manual of Medicine, 19th Edition (Harrison's Manual of Medicine) (English Edition)

Available also the Pocket Manual

McGraw-Hill Education / Medical; 19th Edition (2016)

ISBN 978-0-07-182852-9



Fred F. Ferri. Practical Guide to the care of the Medical Patient.  
Mosby Elsevier (9th Edition) 2014  
ISBN: 978-1-4557-4459-6

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

### UROLOGY

To supplement the educational material presented during the lessons:

- 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