

## BSc in Physiotherapy

**INTEGRATED COURSE TITLE:** ONCOLOGY  
**NUMBER OF ECTS CREDITS:** 4  
**SSD:** MEDS-09/A, MEDS-06/A, MEDS-23/A  
**MODULE CONVENOR:** PROF. GIUSEPPE DI LORENZO  
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MODULE: ONCOLOGY  
NUMBER OF ECTS CREDITS: 2  
SSD: MEDS-09/A  
PROFESSOR : GIUSEPPE DI LORENZO  
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MODULE: GENERAL SURGERY  
NUMBER OF ECTS CREDITS: 1  
SSD: MEDS-06/A  
PROFESSOR : MASSIMILIANO IANNUZZI MUNGO  
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MODULE: ANESTHESIOLOGY  
NUMBER OF ECTS CREDITS: 1  
SSD: MED/41  
PROFESSOR : MATTEO PIATTOLI  
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### **PREREQUISITES**

Although there is no propaedeuticity, in order to understand the course the student should have basic knowledge of human anatomy and pathophysiology, cancer pathophysiology and epidemiology, biology and immunology.

### **LEARNING OBJECTIVES**

The student should know the predisposing conditions and clinical features of different solid neoplastic diseases that define a diagnostic pathway. The knowledge of prognostic and predictive factors according to the characteristics related to the neoplasm and the patient, will enable the understanding of the management strategy of the different tumors, taking into account the therapeutic options applicable in the various stages of the disease and their side effects in order to integrate the knowledge proper to the professional profile in a multidisciplinary collaborative perspective. The course will also provide useful tools for understanding the pathologies of surgical interest, the main anesthesiological techniques (general, neuraxial and regional anesthesia), the approach to the patient in rehabilitation settings of various levels of intensity, cardiopulmonary resuscitation, basics of oxygen therapy, and the general orientation on pain management, with particular emphasis on oncological pain.

### **LEARNING OUTCOMES**

#### **Knowledge and Understanding**

At the end of this teaching, the student should demonstrate knowledge of:

- the major phases of general and peripheral anesthesia and their influence on the management of operated patients and their clinical evolution
- principles of basic cardiopulmonary resuscitation
- principles of acute and chronic pain management;
- principles of evaluation of patients in shock ;
- principles of oxygen therapy, its management and monitoring;
- the main clinical signs and symptoms, diagnostic streams and risks/complications of patients with problems of surgical interest;
- the clinical features of different solid neoplastic diseases.

### **Applying knowledge and understanding**

Upon completion of the course, the student will be able to apply his or her knowledge and comprehension skills in a manner that demonstrates a professional approach to his or her work, and possess adequate skills both to devise and support arguments and to solve problems in his or her field of study and, in particular, in the study of oncological pathologies through the proper conduct of working procedures and experimental protocols independently and in collaboration with the medical profession.

### **Communication skills**

At the end of the course, the student should know how use specific scientific terminology in an appropriate manner.

### **Making judgements**

At the end of the course, students must possess the ability to collect and interpret data deemed useful for integrating and applying knowledge to clinical reasoning related to the approach to the patient diagnosed with cancer, and its complications, formulating an independent judgment. This will make them independent even from the point of critical judgment on social, scientific or ethical issues related to them.

### **Learning Skills**

The student will have acquired skills and learning methods suitable for deepening and improving their knowledge and skills in the field of rehabilitation sciences, also through consultation of scientific literature.

## **COURSE SYLLABUS**

### **Syllabus Oncology**

- Epidemiology of cancer and prevention (primary, secondary and tertiary)
- Prognostic and predictive risk factors
- Assessment and investigations of patients with cancer, including history, physical examination, laboratory and imaging techniques for localized and advanced disease.
- Performance Status Evaluation (Karnofsky and ECOG scores)
- Tumour staging
- Response Evaluation Criteria In Solid Tumours (RECIST)
- Principles of therapy of oncological diseases and clinical effects of therapeutic approaches used: Surgery, radiotherapy, cytotoxic approach (neoajuvant, adjuvant, metastatic and palliatives approaches), hormonal therapy, target therapy and immune anti-cancer agents. Drug resistance
- Focus on major cancers (breast, colon, lung, prostate and bladder)
- Management of medical emergencies and complications resulting from cancer or its treatment

- Supportive care and pain control in advanced patient.

### **Syllabus General Surgery**

- SURGICAL AND TOPOGRAPHICAL ANATOMY
- SURGICAL ACCESS
- ABDOMINAL WALL HERNIAS AND TREATMENT
- INTERNAL BLEEDING
- PERITONEAL CAVITY BLEEDING
- SURGICAL EMERGENCIES AND ACUTE ABDOMEN
- NECK SURGERY
- STOMACH AND SMALL INTESTINE SURGERY
- COLON SURGERY
- LIVER, PANCREAS AND BILIARY TRACT SURGERY
- COMPLEX WOUNDS AND SURGICAL DRESSINGS
- OSTOMIES
- PATIENT MANAGEMENT AND POST-SURGERY THERAPY

### **Syllabus Anesthesiology**

Anesthetic drugs: sedatives, opioids, neuromuscular blocking agents, antagonists;

Anesthetic techniques: local anesthesia, blocks, neuraxial anesthesia, general anesthesia;

Monitoring in anesthesia and post-anesthesia care;

Airway management devices and interfaces; Oxygen therapy; Blood Gas Analysis;

Shock and sepsis;

Elements of pain therapy: general approach, main drugs and techniques used;

Cardio-Pulmonary Resuscitation: Basic Life Support (AHA Guidelines).

### **COURSE STRUCTURE**

The Teaching is structured in 40 hours of frontal teaching, divided into lectures of 2, 3 or 4 hours according to the academic calendar. Frontal teaching includes theoretical lectures and supplementary seminars on the topics covered. Attendance is compulsory for at least 75 percent of the summed hours on all lectures in the integrated course.

### **COURSE GRADE DETERMINATION**

Verification of students' preparation consists of an oral exam covering all subjects of the Teaching.

The final evaluation will be expressed in thirtieths.

### **OPTIONAL ACTIVITIES**

In addition to teaching activities, students will be given the opportunity to participate in Seminars, Research Internships, Department Internships and Monographic Courses. The subjects of the activities are not exam subjects.

### **READING MATERIALS**

#### ONCOLOGIA MEDICA / ONCOLOGY

Chmielowski B., Territo M.C. Manual of Clinical Oncology. Ed: Lippincott Williams and Wilkins.

ISBN 9781496349576

#### CHIRURGIA GENERALE / GENERAL SURGERY

Titolo: Compendio di Chirurgia per le professioni sanitarie

Autori: ESDD – A. Divizia C. Fiorani G. Maggi F. Romano

ANESTESIOLOGIA / ANESTHESIOLOGY

Professor's notes and slides

Stoelting's Pharmacology & Physiology in Anesthetic Practice – Pamela Flood et al.,  
edited by Wolters Kluwer

Sitography:

<https://cpr.heart.org/en/resuscitation-science/cpr-and-ecc-guidelines>

<https://www.asahq.org/standards-and-practice-parameters>

<https://www.sccm.org/SurvivingSepsisCampaign/Guidelines>