

## Degree Course in Physiotherapy

**INTEGRATED COURSE: ONCOLOGY** 

CFU: 4

SSD: MED/06, MED/18, MED/41

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MODULE: ONCOLOGY

CFU: 2

SSD: MED/06

PROFESSOR: PROF. SILVIA RIONDINO e-mail: silvia.riondino@unicamillus.org

OFFICE HOURS: Appointments will be set according to students' requests

MODULE: GENERAL SURGERY

CFU: 1

SSD: MED/18

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MODULE: ANESTHESIOLOGY

CFU: 1

SSD: MED/41

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## **PREREQUISITES**

## ONCOLOGY

- -Knowledge of the general principles of medical terminology.
- -Knowledge of normal human anatomy.
- -Knowledge of physiopathology
- -Knowledge of the principles of oncology and epidemiology
- -Knowledge of the principles of biology and immunobiology of tumors, of the cellular and molecular pathogenetic mechanisms that lead from neoplastic transformation and growth to invasion and metastasis.

## **GENERAL SURGERY**

Even though no prior exams passed are necessary to follow the course, in order to understand the course, the student should have basic knowledge of anatomy, physiopathology.

# **ANESTHESIOLOGY**

Knowledge of technique and timing of most important surgical procedures Knowledge of the physiopathologic basis of most important organs



#### **LEARNING OBJECTIVES**

## ONCOLOGY

Students will need to know the predisposing conditions and the clinical characteristics of the various neoplastic diseases that define diagnostic procedures. The knowledge of prognostic and predictive factors linked to the characteristics related to the neoplasm and to the patient, will help to understand the strategy for the management of different tumors, taking into account the therapeutic options available in the various phases of the disease and their side effects in a risk/benefit assessment perspective in order to achieve useful skills for collaboration with multidisciplinary teams. These objectives will be achieved through lectures aimed at improving the ability to address and resolve the main issues of Oncology.

## **GENERAL SURGERY**

Aim of the course of General Surgery is to provide students with knowledge of surgical diseases. In addition, general knowledge on diagnostic approaches is required. Moreover general information concerning surgical approaches will be explained. These objectives will be achieved through frontal lectures and interactive teaching activities, designed to facilitate learning and improve the ability to address and solve the main questions of a surgical patient.

Student will be asked to recognise main signs and symptoms, diagnostic flow chart, risk and complication of a surgical patient; to describe surgery principles and techniques.

## **ANESTHESIOLOGY**

General and peripheral anesthesia. The basic Monitoring in Intensive Care Unit Organ failure. Physiopathology and treatment Mechanical ventilation Extracorporeal removal techniques The patient in shock Stupor and coma

#### **LEARNING OUTCOMES**

# **ONCOLOGY**

#### Knowledge and understanding

At the end of the course, students must have gained knowledge and understanding in this field of study that represents a post-secondary level and an aptitude to understand not only advanced textbooks, but also some cutting-edge themes in their own field of studies dealt with during the entire educational path, along with the more advanced research protocols.

# Applying knowledge and understanding

At the end of the course, students must be able to apply their knowledge and understanding in order to demonstrate a professional approach to their work, and possess adequate skills to both devise and support arguments and to solve problems in their field of study. In detail, students must be able to apply their knowledge with a scientific and experimental method to the study of oncological pathologies and to the proper



application to working procedures and experimental protocols in full autonomy and in collaboration with the medical staff.

#### Communication skills

At the end of the course, students should have acquired an independent critical judgment ability, especially in the analytical and clinical capacity of the results, in order to be able to communicate information, ideas, problems and solutions to specialist and non-specialist interlocutors, in a perspective of interdisciplinary mediation.

# 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.

## **GENERAL SURGERY**

## Knowledge and understanding

At the end of this course the student should know physiopathology, functional semeiotic and general surgery concerning his scope and expertise.

# Applying knowledge and understanding

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

- To use the acquired knowledge for the autonomous deepening of aspects related to the specific field to which the student will devote himself within the professional activity;

## **Communication skills**

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

Use specific scientific terminology in an appropriate manner.

# Making judgements

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

carry out general assessments of the topics covered.

## <u>ANESTHESIOLOGY</u>

# knowledge and understanding

Understanding the main phases of general and peripheral anesthesia Understanding monitoring and treatment in ICU

#### **COURSE SYLLABUS**

## <u>ONCOLOGY</u>

- Epidemiology of cancer and prevention
- Prognostic and predictive risk factors
- Carcinogenesis, cancer growth and proliferation, cancer immune tolerance



- Assessment and investigations of patients with cancer, including history, physical examination, laboratory and imaging techniques. 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), target therapy and immune anti-cancer agents. Drug resistance
- Management of medical emergencies and complications resulting from cancer or its treatment
- Clinical rehabilitation of cancer patients.

## **GENERAL SURGERY**

- SHOCK
- THYROID PARATHYROID ADRENAL GLANDS
- ESOPHAGUS-STOMACH-DUODENUM
- SMALL INTESTINE- APPENDIX
- LARGE INTESTINE -RECTUM -ANUM
- SPLEEN- PANCREAS
- LIVER -BILIARY TRACT GALLBLADDER
- ABDOMINAL WALL
- DIGESTIVE HEMORRHAGE
- ACUTE ABDOMEN

## **ANESTHESIOLOGY**

Preparation of environment and patient to surgical procedures
Techniques of anesthesia: general, spinal, regional, local.
Monitoring in Intensive Care Unit
Organ failure. Physiopathology and treatment
Mechanical Ventilation
Extracorporeal removal techniques
The patient in shock
Stupor and coma

#### **COURSE STRUCTURE**

#### **ONCOLOGY**

Frontal and interactive lessons with the aid of slides and continuous verification of knowledge, understanding and learning of the students.

# **GENERAL SURGERY**

The course is structured in 10 hours of frontal teaching, divided into lessons of 2 or 4 hours according to the academic calendar. Frontal teaching includes theoretical lessons and additional seminars on the topics covered.

#### **ANESTHESIOLOGY**

Frontal interactive lesson



#### COURSE GRADE DETERMINATION INTEGRATED COURSE

The verification of the students' preparation on the subjects of the Integrated Course consists of a written test followed by an optional oral test to increase the initial evaluation. The written exam of <u>Oncology</u> consists of a questionnaire with 30 multiple choice and/or open questions on the topics covered during the lessons; that of <u>Anesthesiology</u> in a test with 30 multiple choice questions, that of <u>General Surgery</u> in 15 multiple choice questions. The final evaluation will be expressed in thirtieths.

The following will also be assessed: making judgements, communication skills and learning skills as indicated in the Dublin descriptors.

#### **OPTIONAL ACTIVITIES**

#### **GENERAL SURGERY**

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.

# **ANESTHESIOLOGY**

Advanced simulation

## **READING MATERIALS**

## <u>ONCOLOGY</u>

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

ISBN 9781496349576

## **GENERAL SURGERY**

Titolo: Compendio di Chirurgia per le professioni sanitarie Autori: ESDD – A. Divizia C. Fiorani G. Maggi F. Romano

# <u>ANESTHESIOLOGY</u>

Anesthesiology textbooks, professor's notes