

## DEGREE IN MIDWIFERY

### **Integrated Teaching: ANESTHESIA AND INTENSIVE CARE-PRINCIPLES OF PHARMACOLOGY APPLIED TO OBSTETRICS**

SSD: BIO/14, MED/17, MED/18, MED/40, MED/41

Credits: 5

Responsible Professor: Roberto Verzaro

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MODULE: General Surgery

SSD: MED/18

Number of Credits: 1

Professor: Roberto Verzaro

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MODULE: Pharmacology

SSD: BIO/14

Number of Credits: 1

Professor: Matteo De Martino

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MODULE: Anesthesiology

SSD: MED/41

Number of Credits: 1

Professor: Anselmo Caricato

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MODULE: Infectious Diseases

SSD: MED/17

Number of Credits: 1

Professor: Giuseppe Ippolito

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MODULE: Gynaecology and Obstetrics

SSD: MED/40

Number of Credits: 1

Professor: Niccolò Giovannini

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### **PREREQUISITES**

The pre-requisites for the students are knowledge of: basic concepts of biochemistry, anatomy and physiology, anatomy and physiology of the female reproductive system, and physiological changes during pregnancy. Knowledge of microorganisms and of the immune response is needed, as well as the main mechanisms of inflammation and infection.

### **LEARNING OBJECTIVES**

The goal of the Integrated Course is to provide the students with in-depth knowledge on: main surgical diseases and their treatment, management about pre- and post-operative care of surgical patients, pharmacological, general and peripheral anesthesia concepts necessary in case of surgical emergencies.

Moreover, the Integrated Course aims to provide students with knowledge of main infectious diseases with specific regard to the basic principles of epidemiology, pathogenesis, clinical diagnosis and therapy, as well as primary and secondary prevention tools.

Finally, the Integrated Course will provide adequate knowledge on the salutogenesis of women in the obstetric-gynecological field.

## LEARNING OUTCOMES

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.

At the end of this teaching, students will be able to:

### Knowledge and Understanding

- understand main surgical diseases
- understand the pathophysiology of surgical diseases
- be confident with and understand the nursing management of diagnosis and therapy of main surgical diseases
- be able to use specific nursing knowledge to deal with a surgical patient
- discuss commonly used medications in relation to their action, use, side effects and implications in obstetrics
- identify drugs used in emergencies
- compare gender, racial and ethnic differences in response to medication administration, action and response
- delineate midwife strategies to optimize the administration of a reliable treatment
- know the classification of the main bacterial, viral and protozoan infections
- describe the epidemiological principles of diseases, with special attention to the different geographical contexts
- explain infection transmission mechanisms
- understand the diagnostics for pathogens and immune response
- know and describe the main therapeutic classes for prevention and treatment
- describe isolation and infection control measures
- explain the importance of the microbiome for the health of women and children
- describe the main basis of integrated medicine applied to women's health
- describe the appropriate dietary patterns for women at different stages of life, including vegetarian and vegan diets in general, during pregnancy and breastfeeding

### Applying Knowledge and Understanding

- apply the principles of midwifery to selected cases, problems, and a variable range of situations
- use the tools, methodologies language and conventions of midwifery to test and communicate ideas and explanations

### Communication Skills

- present the topics orally in an organized and consistent manner
- use a proper scientific language coherent with the topic of discussion

### Making Judgements

- recognize the importance of an in-depth knowledge of the topics consistent with a proper education
- identify the importance of a proper theoretical knowledge of the topic in the clinical practice

## COURSE SYLLABUS

### VERZARO

Surgical Basic Principles: Shock

Preoperative Surgery: Principles of Preoperative and Operative Surgery, Surgical Infections and choice of antibiotics, Minimally invasive surgery

Trauma and Critical care: Management of acute trauma

Head and Neck: Thyroid, Parathyroid

Breast: Diseases of the breast, breast tumors

Endocrine Surgery: Endocrine pancreas, Adrenal glands, MEN

Esophagus: Hiatal Hernia and GERD, Esophageal motility Disorders, Esophageal neoplasms

Abdomen: Hernias, Stomach, Small Intestine, Acute Intestinal Hemorrhages, Acute Abdomen, Appendix, Colon and Rectum, Anus, The Liver, Biliary Tract, Exocrine pancreas, Spleen

The Chest: Lung, Lung neoplasms

Gynecology Surgery

Vascular Surgery

Pediatric surgery

#### DE MARTINO

Drug Therapy During Pregnancy and Breast-Feeding

Drug Therapy in Pediatric Patients

Drug Therapy in Geriatric Patients

Local Anesthetics

General Anesthetics

Opioid (Narcotic) Analgesics, Opioid Antagonists, and Nonopioid Centrally Acting Analgesics

Pain Management in Patients with Cancer

Sedative-Hypnotic Drugs

Drugs for Hypertension

Drugs for Heart Failure

Drugs for Angina Pectoris

Anticoagulant, Antiplatelet, and Thrombolytic Drugs

Prophylaxis of Coronary Heart Disease: Drugs That Help Normalize Cholesterol and Triglyceride Levels

Drugs for Deficiency Anemias

Drugs for Diabetes Mellitus

#### CARICATO

Preparation of environment and patient to surgical procedures

Use of anesthetics. Management of preanesthesia phase

Intra and post-surgical phase

Management of central and peripheral venous lines and surgical drainages

Management of surgical wounds and post-surgical pain

Monitoring in Intensive Care Unit

Organ failure. Physiopathology and treatment

Mechanical Ventilation

Extracorporeal removal techniques

The patient in shock

Stupor and coma

#### IPPOLITO

General aspects on Infectious Diseases

Infection and infectious disease

The chain of transmission

The body's defenses against infectious diseases

Diagnostic procedure and guiding concepts of therapy, types of isolation

Globalization and infectious diseases

The Infectious syndromes (epidemiology, etiology, clinical, diagnostic and diagnostic and therapeutic aspects)

- Sepsis and endocarditis
  - SIRS, sepsis, septic shock
- Acute respiratory syndrome
- Acute neurological syndrome
  - Meningitis and infectious encephalitis

- Diarrheal syndrome
- Acute jaundice syndrome
- Febrile exanthematous syndromes
- Feverish syndromes returning from the tropics

HIV infection / AIDS

Viral hepatitis

GIOVANNINI

-The microbiome: eubiosis and dysbiosis, physiopathogenetic mechanisms associated with microbiome alterations, treatment of microbiome alterations through probiotic integration, treatment of microbiome alterations through diet, characteristics and modulation of the gut-brain-microbiome axis, microbiome and health of women and children.

- Main bases of integrated medicine applied to women's health

- Appropriate food models for women at different stages of life, including vegetarian and vegan diets in general, during pregnancy and breastfeeding

### **COURSE STRUCTURE**

The course consists of 70 hours of classroom teaching, composed of frontal lessons, working groups and interactive learning activities.

### **COURSE GRADE DETERMINATION**

MODULES OF VERZARO, DE MARTINO, IPPOLITO, GIOVANNINI (written+oral)

Written and oral examination will allow a comprehensive student evaluation. Written test consists of 30 multiple choice questions. The final score is based on correct answers being assigned one point for each correct answer. A minimum of 18 is required to pass the written test and to proceed to the oral exam.

MODULES OF VERZARO, DE MARTINO, CARICATO, IPPOLITO, GIOVANNINI

The final evaluation of the integrated course will be oral. The evaluation criteria for the oral exam will be acquired knowledge (range score: 0-8), making judgements (range score: 0-8), communication skills (range score: 0-7), learning skills (0-7). The students must be able to demonstrate their knowledge on the contents, to organize in a critical way the topics established by the program, using an appropriate language.

### **OPTIONAL ACTIVITIES**

Students can request optional workshops to deepen some specific topics.

### **READING MATERIALS**

-SABISTON TEXTBOOK OF SURGERY The biological basis of modern surgical practice. Elsevier Saunders. 20TH EDITION

-The Washington Manual of Surgery 2016. Lippincott Williams & Wilkins

-AACN Essentials of Critical Care Nursing, 4th Ed. Authors: S. Burns, S. Delgado. McGraw Hill Editor

-Critical Care Nursing: Science and Practice di Sheila Adam, Sue Osborne, e al. OUP Oxford Ed

-Guida al monitoraggio in area critica.GD Giusti, Maggioli Editore

-Oh. Manuale di terapia Intensiva. Bersten AD, Soni N. Elsevier Masson Editore

-Mayes' Midwifery. Macdonald, Johnson. Elsevier. 2017

-Books of pharmacology

-WHO-EU. Infections and infectious diseases A manual for nurses and midwives in the WHO EuropeanRegion. WHO 2001, available for free at:

[http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0013/102316/e79822.pdf](http://www.euro.who.int/__data/assets/pdf_file/0013/102316/e79822.pdf)

-Didactic material (lessons in pdf, papers, etc.) delivered by the Professors