

## DEGREE IN MIDWIFERY

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

SSD: MEDS-06/A, BIOS-11/A, MEDS-23/A, MEDS-10/B, MEDS-21/A

Responsible Professor: [Diego Fiume](#)

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Credits: 5

Module: Anaesthesiology

SSD: MEDS-23/A

Professor: [Diego Fiume](#)

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Number of Credits: 1

Module: General Surgery SSD: MEDS-06/A

Professor: [Francesco Giovinnazzo](#)

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Number of Credits: 1

Module: Pharmacology SSD: BIOS-11/A

Professor: [Annalisa Bruno](#)

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Number of Credits: 1

Module: Infectious Diseases SSD: MEDS-10/B

Professor: [Giuseppina Liuzzi](#)

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Number of Credits: 1

Module: Gynaecology and Obstetrics

SSD: MED/40

Professor: [Luca Cipriano](#)

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Number of Credits: 1

### **PREREQUISITES**

The prerequisites 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 indepth knowledge on: main surgical diseases and their treatment, management about pre and postoperative care of surgical patients, pharmacological, general and peripheral anesthesia concepts necessary in case of surgical and obstetric 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.

## **LEARNING OUTCOMES**

The expected learning outcomes are consistent with the Bologna Process's instructions (or regulations) and the Directive 2005/36/EC. They are in the European Qualifications Framework (Dublin Descriptors) as follow:

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

### **Knowledge and understanding**

Describe the foundations of Evidence Based Midwifery  
Describe the relevant aspects of research activity for the professional practice of midwives  
Structure a research on topics of biomedical scientific literature  
Build a research question and formulate a PICO (Population, Intervention, Control, Outcome)  
Consult the main biomedical databases (e.g. PubMed)  
Describe the main types of study useful for professional practice  
Describe the theory and methods for the design and implementation of a cross-sectional study  
Describe the main data collection tools  
Describe the main data analysis methods  
Understand and evaluate a scientific article  
Understand the guidelines produced by public institutions (e.g. Istituto Superiore di Sanità - Sistema Nazionale Linee Guida, Organizzazione Mondiale della Salute)  
Acquire skills useful for writing the Degree Thesis

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

Find evidence-based information to support professional practice  
Transfer theoretical knowledge of obstetric care to good clinical practices  
Translate the results of scientific research into communication content appropriate to professional practice

### **Communication skills**

Present arguments orally in an organized and coherent manner  
Use appropriate scientific language that is consistent with the topics covered  
Communicate the results of quantitative and qualitative research  
Prepare abstracts and short reports

### **Making judgments**

Argue the importance of clinical practices based on scientific evidence  
Autonomously evaluate the scientific sources on which to base one's clinical practice

### **Learning skills**

The student must be able to activate autonomous in-depth paths by consulting databases of scientific literature and texts relating to emergencies/urgencies.

## **COURSE SYLLABUS**

### **SURGERY**

- 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

## **PHARMACOLOGY**

- General principles of reproductive and developmental toxicology: male and female reproductive toxicology, critical periods of susceptibility, dose-response relationship, and threshold concept.
- Medications for hypertension
- Anticoagulant drugs
- Antiplatelet and thrombolytic drugs
- Local anesthetics
- General anesthetics
- Sedative-hypnotic drugs
- Oxytocic and abortion-inducing drugs (Oxytocin, Prostaglandins)
- Tocolytic drugs (Ritodrine, Calcium channel blockers)
- Uterotonic drugs (Ergometrine, Methysergide)
- Principles of antibiotic therapy
- Antidiabetic drugs
- Over-the-counter drugs, medicinal plants, and herbal products in pregnancy
- Prescribing drugs in childbearing and pregnancy: principles and clinical practice

## **ANESTHESIOLOGY**

- Preparation of environment and patient to surgical procedures
- Use of anesthetics. Management of preanesthesia phase
- Intra and postsurgical phase
- Management of central and peripheral venous lines and surgical drainages
- Management of surgical wounds and postsurgical pain
- Monitoring in Intensive Care Unit
- Organ failure. Physiopathology and treatment
- Mechanical Ventilation
- Extracorporeal removal techniques
- The patient in shock
- Stupor and coma

## INFECTIOUS DISEASES

- 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

## GYNECOLOGY

Obstetric emergencies: obstetric gynaecological interventions; changes in the course of labour, arrest of labour and uterus rupture; malpositions and malpresentations; cord prolapse; shoulder dystocia; disseminated intravascular coagulation.

## COURSE STRUCTURE

The course consists of 70 hours of classroom teaching, composed of frontal lessons, working groups and interactive learning activities through simulations, use of mannequins and discussion of clinical cases.

## COURSE GRADE DETERMINATION

The final exam will be oral and it will be communicated at the beginning of the lessons together the didactic materials necessary to the preparation for the final evaluation.

The oral exam will focus on the program and will assess the student's knowledge and mastery of specific scientific language.

The evaluation criteria considered will be: acquired knowledge, independent judgment, communication skills and learning skills. The exams will be assessed according to the following criteria:

<b>&lt; 18 Fail</b>	The candidate possesses an inadequate knowledge of the topic, makes significant errors in applying theoretical concepts, and shows weak presentation skills.
<b>18-20</b>	The candidate possesses a barely adequate and only superficial knowledge of topic, limited presentation skills, and only an inconsistent ability to apply theoretical concepts.

<b>21-23</b>	The candidate possesses an adequate, but not in depth, knowledge of the topic, a partial ability to apply theoretical concepts, and acceptable presentation skills.
<b>24-26</b>	The candidate possesses a fair knowledge of the topic, a reasonable ability to apply theoretical concepts correctly and present ideas clearly.
<b>27-29</b>	The candidate possesses an in depth knowledge of the topic, a sound ability to apply theoretical concepts, good analytical skills, clear argumentative clarity and an ability to synthesize.
<b>30-30L</b>	The candidate possesses an in depth knowledge of the topic, an outstanding ability to apply theoretical concepts, a high level of argumentative clarity, as well as excellent analytical skills, and a well developed ability to synthesize and establish interdisciplinary connections.

### **OPTIONAL ACTIVITIES**

Students can request optional workshops to deepen some specific topics.

### **READING MATERIALS**

#### **GYNECOLOGY:**

- Pescetto, De Cecco, Pecorari, Ragni. Ginecologia e ostetricia. 2017
- Trattando di Scienza ed Arte della Professionalità Ostetrica. Costantini W. Piccin. Ed. 2021.

#### **ANAESTHESIOLOGY:**

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

#### **PHARMACOLOGY:**

- Michelle A. Clarke, Richard Finkel, Jose A.Rey, Karen Whalen- Le basi della farmacologia - Zanichelli

#### **OTHER MODULES:**

- Didactic material delivered by the Professors.