

## DEGREE IN MIDWIFERY

**Integrated Teaching: INTERNAL MEDICINE, SURGERY, PRENATAL MEDICINE, CHILDBIRTH CARE**

SSD: MEDS-08/A, MEDS-06/A, MEDS-09/A, MEDS-21/A

Responsible Professor: [Angelica Catalano](#) E-mail: [angelica.catalano@unicamillus.org](mailto:angelica.catalano@unicamillus.org)

Credits: 6

MODULE: Endocrinology

SSD: MEDS-08/A

Professor: [Marco Infante](#)

E-mail: [marco.infante@unicamillus.org](mailto:marco.infante@unicamillus.org)

Number of Credits: 1

MODULE: General Surgery

SSD: MEDS-06/A

Professor: [Tommaso Brancato](#)

E-mail: [tommaso.brancato@unicamillus.org](mailto:tommaso.brancato@unicamillus.org)

Number of Credits: 1

MODULE: Specialistic Medicine

SSD: MEDS-09/A

Professor: [Alberto Bongiovanni](#)

E-mail: [alberto.bongiovanni@unicamillus.org](mailto:alberto.bongiovanni@unicamillus.org)

Number of Credits: 1

MODULE: Gynaecology and Obstetrics

SSD: MEDS-21/A

Professors:

[Angelica Catalano](#)

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Number of Credits: 3

### PREREQUISITES

In order to follow the course profitably it is expected that students have preliminary knowledge of the basic principles of anatomy, physiology, general pathology and the physiological changes during pregnancy.

### LEARNING OBJECTIVES

At the end of the course the student will be able to describe the main complications related to the different phases of a woman's life, pregnancy, and birth.

Further objective of the course is the identification of the main pathologies of interest to oncologic medicine, as well as a knowledge of the risk factors, clinical presentation, diagnostic approaches and, lastly, patient management.

Other objectives of the course are to provide the student with the knowledge of the main mechanisms of physiology and pathology of human reproduction. The student will learn the physiological reproductive process, understanding the basic biological concepts of human reproduction and alterations of the reproductive mechanisms that can cause infertility in the couple. He will know the main benign gynaecological pathologies and endocrinological disorders of the

ovarian cycle that can cause infertility.

Finally, this course aims at providing the student with the sufficient knowledge of the clinical and diagnostic problems inherent in the affections of surgical relevance in the pediatric 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

- Describe the pathophysiological bases of the main diseases of the endocrine system and metabolism, with particular reference to gender differences, the physiology of the endocrine system and the endocrine diseases during pregnancy
- Describe the basics of oncology, be familiar with the history of cancer and symptoms and toxicity treatment related
- Describe the main congenital malformations of surgical interest (esophageal atresia, urinary tract malformations, intestinal atresia, malformations anorectal, congenital diaphragmatic hernia and wall defects).
- Describe the causes of the main clinical pictures that involve intestinal obstruction in the infant and infancy
- Describe the gynaecological pathologies cause of infertility
- Describe the instrumental and laboratory diagnosis of the infertile couple
- Explain therapeutic strategies in the infertile couples
- List the different techniques of ART
- Describe the modifications and changes of organs and organic system that take place during pregnancy
- Describe the utility of TORCH tests
- Describe the causes, the symptoms as well as the clinical evolution of past partum complications
- Describe the diagnostic workup for the abnormal implants of placenta
- Explain the causes, the symptoms as well as the clinical evolution of sepsis
- Describe the classification, management and treatment of III and IV degree of perineal injuries
- Describe the causes, the symptoms as well as the clinical evolution of puerperal complications
- Describe the role of prenatal diagnosis in terms of both prenatal counseling and fetal sampling
- Collaborate in the preparation of the material taken for prenatal diagnosis investigations
- Describe prenatal screening methods for chromosomopathies risk
- Explain the methods to diagnose intrauterine growth retardation
- Describe the physiopathological and clinical characteristics of the III trimester hemorrhages
- Evaluate fetal well-being in terms of laboratory tests rather than instrumental techniques
- Manage obstetric care needs that require preventive and curative skills in specific ultra-specialist sectors such as infectious diseases and trophoblast malignancy

#### 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

- Understand scientific language and terms used in the written exam
- 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

### Learning Skills

The student must be able to activate autonomous paths of in-depth study through the consultation of scientific literature and medical texts, with particular attention to endocrinology and gynecology.

## **COURSE SYLLABUS**

### ENDOCRINOLOGY

- General principles of Endocrinology
- Anatomy and physiology of the endocrine system
- Regulation of hormone secretion and negative feedback mechanism
- Pituitary disorders (pituitary adenomas, hyperprolactinemia, disorders of the GH-IGF-1 axis, general overview of the disorders of pubertal development, hypopituitarism, hypogonadism, postpartum pituitary apoplexy, diabetes insipidus)
- Thyroid disorders (thyroiditis, hypothyroidism, hyperthyroidism and thyrotoxicosis, thyroid nodules, thyroid cancer)
- Adrenal gland disorders (Cushing's syndrome, Addison's disease, endocrine hypertension)
- Disorders of calcium-phosphorus metabolism and osteoporosis
- Hyperandrogenism and polycystic ovary syndrome
- Diabetes mellitus: classification, pathophysiology, clinical manifestations and basic principles of antidiabetic therapy
- Obesity and metabolic syndrome

### MEDICINE

- Fundamentals of Oncology and the Pathophysiology of Carcinogenesis
- Hereditary Syndromes in Oncology
- Methodology in Oncology: Performance Status, Evidence Criteria, and Disease Assessment
- Epidemiology, Aetiology, Diagnosis, and Staging of Gynaecological Neoplasms:
  - Breast Cancer
  - Ovarian Cancer
  - Endometrial Cancer
  - Cervical Carcinoma
- Supportive Therapies, Pain Management and Fertility Preservation

### SURGERY

Congenital malformations (head, neck, thorax, abdomen, genital and urinary tract); malformations and obstructions of the upper airways; esophageal atresia; neonatal bowel obstruction; newborn abdominal masses; acute scrotum.

## GYNECOLOGY

- Anatomy of the female and male reproductive system
  - Human reproductive physiology: The menstrual cycle, the hormones of the hypothalamus-pituitary axis, ovarian steroid-genesis. Spermatogenesis. Epidemiology of infertility
  - Endocrine disorders in infertile woman: primary and secondary amenorrhea, polycystic ovarian syndrome. Pituitary and ovarian hormone profile
  - Gynecological causes of female infertility, endometriosis, classification of congenital uterine malformations. Genetic causes of male and female infertility
  - Instrumental diagnosis: ultrasound, monitoring of ovulation, hysterosalpingography, hysteroscopy and laparoscopy
  - Therapeutic approaches in infertile couple. Use of food supplements and hormones. The different assisted reproduction techniques both homologous and heterologous
  - Italian legislation on ART
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- Physiological modification during pregnancy
  - Laboratory tests and TORCH test
  - Complications of post-partum and puerperium
  - Post partum haemorrhage
  - Perineal injuries
  - Uterus rupture
  - Manual removal of placenta
  - Sepsis and shock
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- Prenatal diagnosis: prenatal counselling, non-invasive methods and invasive methods.
  - Screening tests, meaning and role
  - Foetal sampling techniques
  - Foetal welfare assessment: Plasma and urinary indicators; Ultrasound in different times of pregnancy; The behavioural and biophysical profile; Antepartum cardiotocography
  - Infections during pregnancy
  - Third trimester bleeding
  - The pathology of the trophoblast: benign and malignant
  - The gynaecological and obstetric emergency room
  - Hormonal therapies: from adolescence to menopause
  - Contraceptive methods

### **COURSE STRUCTURE**

The course consists of 84 hours of classroom teaching, composed of frontal lessons and interactive learning activities, especially using presentations of clinical cases.

### **COURSE GRADE DETERMINATION**

The final exam will be written and oral and it will be communicated at the beginning of the lessons together with 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**

#### ENDOCRINOLOGY

Manuale di Endocrinologia (Carocci Editore 2023 - Andrea Lenzi)

#### MEDICINE

La medicina oncologica. Diagnosi, terapia e gestione clinica di Roberto e Stefano Cascinu

#### SURGERY

Elementi di Chirurgia Pediatrica, Ferdinando Cataliotti, edito dalla Piccin

#### GYNECOLOGY

Choose one book:

- Costantini. Trattando di Scienza ed Arte della Professionalità Ostetrica. Piccin. Ed. 2021.
- Bolis. Manuale di Ginecologia e Ostetricia. EdiSES. Ed. 2017.
- Pescetto, De Cecco, Pecorari, Ragni. Ginecologia e Ostetricia. SEU. Ed. 2017.

#### OTHER MODULES

Didactic and integrative material provided by the lecturer.