

DEGREE IN MIDWIFERY

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

SSD: MED/13, MED/18, MED/06, MED40

Credits: 6

Responsible Professor: Gaetano Lanzetta

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MODULE: Endocrinology

SSD: MED/13

Number of Credits: 1

Professor: Salvatore Maria Corsello

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MODULE: General Surgery

SSD: MED/18

Number of Credits: 1

Professor: Massimo Villa

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MODULE: Specialistic Medicine

SSD: MED/06

Number of Credits: 1

Professor: Gaetano Lanzetta

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MODULE: Gynaecology and Obstetrics

SSD: MED/40

Number of Credits: 3

Professors:

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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 the physiology of the endocrine system and diseases during pregnancy and puerperium
- 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 causes, the symptoms, and the methods to diagnose a miscarriage and ectopic pregnancy
- Describe etiology, pathogenetic mechanisms and the clinics of the placenta during pregnancy
- List the pathogenetic mechanisms of the various types of pregnancy-induced hypertension, the clinical course of both preeclampsia and eclampsia as well as their potential impact on maternal and fetal wellbeing
- Explain the pathogenetic mechanisms, the diagnostic features, the clinical course, and

impact on maternal and fetal wellbeing of gestational diabetes mellitus and of diabetes mellitus in pregnancy

- Describe the causes and preterm labor; the pathogenetic mechanisms underlying preterm labor, the diagnostic issue of preterm labor and the maternal and fetal-neonatal impact of preterm birth
- Describe the causes of the major dystocias and their effects on labor progression as well as on the fetal wellbeing
- 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 hemorrhagies
- 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

- 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

ENDOCRINOLOGY

General principles of endocrinology

Anatomy and physiology of the endocrine system

Regulation of hormone secretion and negative feedback

Pituitary disorders (pituitary adenomas, hyperprolactinemia, pathologies of GH secretion, hints of pathologies of pubertal development,

Hypopituitarism, hypogonadism, postpartum pituitary apoplexy, diabetes insipidus)
Thyroid disorders (thyroiditis, hypothyroidism, hyperthyroidism and thyrotoxicosis, thyroid nodules, thyroid tumors)
Adrenal disorders (Cushing's syndrome, Addison's disease, endocrine hypertension)
Disorders of calcium-phosphoric metabolism and osteoporosis
Hyperandrogenisms and polycystic ovary syndrome
Diabetes Mellitus: classification, pathogenesis, clinical manifestation and medical treatment.
Obesity and Metabolic Syndrome

MEDICINE

Carcinogenesis pathophysiology
Epidemiology, Etiology, diagnosis, and staging of gynecological cancer
Papillomavirus
Cancer prevention and Pap-Test
Ovarian cancer
Breast cancer
Endometrial cancer
Cervix cancer
BRCA1 and BRCA2 and genetic counselling

SURGERY

Congenital malformations (head, neck, thorax, abdomen, genital and urinary tract); malformations and obstructions of the upper airways; esophageal atresia; bowel obstruction baby girl; 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

Physiopathology of implantation and early pregnancy.
Miscarriage: aetiology, clinical forms, diagnosis, principles of treatment.
Ectopic pregnancy: aetiology, pathophysiology, clinical presentation, diagnosis, principles

of treatment.

Hypertensive disorders of pregnancy (pregnancy-induced hypertension, preeclampsia, eclampsia): aetiology, pathogenetic mechanisms, diagnosis, principles of treatment.

Diabetes in pregnancy: aetiology, pathogenetic mechanisms, diagnosis, principles of treatment.

Abruption placenta and placenta previa: aetiology, pathogenetic mechanisms, diagnosis, principles of treatment.

Preterm labour: Aetiology, pathogenetic mechanisms, diagnosis, principles of treatment.

Types of dystocia in labour.

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

Intrauterine growth retardation

Third trimester bleeding

Foetal erythroblastosis

The pathology of the trophoblast: benign and malignant

The gynaecological and obstetric emergency room

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 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:

< 18 Fail	The candidate possesses an inadequate knowledge of the topic, makes significant errors in applying theoretical concepts, and shows weak presentation skills.
18-20	The candidate possesses a barely adequate and only superficial knowledge of topic, limited presentation skills, and only an inconsistent ability to apply theoretical concepts.
21-23:	The candidate possesses an adequate, but not in-depth, knowledge of the topic, a partial ability to apply theoretical concepts, and acceptable presentation skills.
24-26	The candidate possesses a fair knowledge of the topic, a reasonable ability to apply theoretical concepts correctly and present ideas clearly.
27-29	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.
30-30L	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

- Endocrinologia - Per i corsi di Laurea delle professioni sanitarie di Monaco - Santarelli, Società Editrice Universo, 2013
 - MEDICINA ONCOLOGICA Gianni Bonadonna, Gioacchino Robustelli Della Cuna, Pinuccia Valagussa
 - Elementi di Chirurgia Pediatrica, Ferdinando Cataliotti, edito dalla Piccin
 - G. Bolis: Manuale di Ginecologia e Ostetricia – II Edizione 2017 – EdiSES, Napoli
- Didactic and integrative material provided by the lecturer.