UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

## Obstetrics and Gynaecology

**2122-5-H4101D332-H4101D111M**

### Aims

The primary aim of this course is to allow medical students to acquire general notions of gynaecology and pathology in order to identify diseases, and to differentiate basic from severe ones, that is those that could require a specialistic intervention.

### Contents

GYNAECOLOGY: anatomy of female genital tract, physiological changes of female genital tract in puberal period, physiological changes of female genital tract during fertility period, physiology of human reproduction, menopause and advanced age. Etiopathogenesis, differential diagnosis and treatment of diseases during the fertility period, inflammatory pelvic disease, sexual trasmitted diseases, malignant and benign neoplasia of female genital tract, gestational throphoblastic disease/neoplasia. Diagnostic procedures in infertile couples.

OBSTETRICS: Embryology and placentation, pregnancy and puerperium with physiological changes in mother's body. Ultrasound scans and study of fetal anatomy and growth, prenatal diagnosis (reasons of execution, procedures), amniotic fluid (physiopathology). Labour and delivery (physiology), puerperium (physiology). Etiopathogenesis, differential diagnosis, and treatment of obstetrical emergencies and complications, medical diseases during pregnancy, preeclampsia, preterm labour and delivery, post-term pregnancies, fetal growth abnormalities, Therapeutic approach of fetal disorders, obstetrical infections, labour's abnormalities (labour dystocia, vaginal operative delivery, caesarean section), puerperium's diseases. Treatment options of fetal diseases.

## Detailed program

Based on the knowledge learned during the course and in the internship, the future doctor will acquire the skills to deal with issues related to the life of women. This field is vast and important for medicine because it includes both the physiological changes that occur during the cycle of reproduction and the specific pathologies of fertility, pregnancy-delivery and the pathological conditions affecting the female genital apparatus. Through the anamnesis including the social conditions and the possible specific risk factors, the symptoms, the physical examination and some selected exams instrumental, the student must know how to identify a biologic-clinical scenario in which to differentiate modifications in the field of physiology rather than conditions of pathology both for the obstetric and gynecological components of the discipline. In order to achieve these objectives is indispensable to have basic preliminary knowledge (anatomy, physiology and general pathology of the female genital apparatus outside pregnancy and during pregnancy including fetal development), plus the acquisition of adequate skills (anamnesis, semeiotic and objective examination) and differential diagnosis knowledge of the main obstetric and gynecological pathologies, complementary instrumental examinations, diagnosis and therapy of common conditions and emergencies). In detail, the program is divided into the following points:

ANATOMY AND PHYSIOLOGY OF THE GENITAL TRACT

Notions and clinical declination of: - Descriptive anatomy of the female genital system - Topographic anatomy of the pelvis • Elements of embryology and organogenesis aimed at understanding the malformations of the genital apparatus • Physiology of the female genital apparatus with particular emphasis on: - Maturation of the genital apparatus in puberty - Cyclical changes in the fertile age: hypothalamic-hypophysis-gonadal axes and target organs with the peculiar anatomical and functional modifications - Cessation of ovarian and uterine activity: climacteric and senile age • Vaginal microclimate and its modifications in the various ages of women • Physiology of reproduction • Purpose of diagnostic imaging, laboratory and endoscopy in couple sterility.

PREGNANCY AND DELIVERY

• The fundamental stages of fertilization of nesting and placentation. - Implications in some obstetric complications (ex: extrauterine pregnancy, abortion, preeclampsia) - Overview of embryogenesis and the destination of embryo sheets • Clinical and biochemical diagnosis of pregnancy.- Physiological pregnancy - Signs and clinical symptoms of pregnancy - Biochemical diagnosis addresses - Interpretation of the main biochemical tests during pregnancy - Differential diagnosis between physiological pregnancy and at-risk pregnancy, planning of adequate controls • Modifications of the maternal organism during pregnancy and in the puerperium: cardiovascular system, respiratory tract, urinary tract, gastrointestinal system, endocrine system, haemostasis • Amniotic fluid - Physiopathology of amniotic fluid - Main alterations (oligoidramnnios, polidramnios) and clinical implications • Labor and delivery: - Anatomical functional changes of the uterus during pregnancy and during labor and delivery. - Delivery and the characteristics of its factors: bone birth canal, "soft parts" birth canal, fetal mobile - eutocic delivery mechanism - Main dystocia in vaginal delivery - Vaginal operative delivery- Abdominal operative delivery - Postpartum physiopathology: principles of anatomy, pathological and clinical anatomy.

OBSTETRICAL PATHOLOGY

• Obstetrical bleeding and related emergencies and complications - Hemorrhages in the first trimester: clinical problems related to miscarriage, to the medical aspects of the voluntary interruption of pregnancy, to extrauterine pregnancy - Bleeding in the 2nd trimester - Bleeding in childbirth and uterus rupture - Hemorrhages in the second stage • Pathological puerperium: diagnosis and treatment of puerperal pathology (haemorrhagic, infectious, thrombotic, mammary) • Dismetabolic diseases in pregnancy (diagnosis and treatment): - Pre-fictional diabetes - Gestational diabetes - Hyperthyroidism – Hypothyroidism • Preterm birth: etiology, prevention, diagnosis, clinical

management • Pregnancy on term and after the term - Pregnancy monitoring techniques at term - Risks of pregnancy beyond the deadline and possibility of prevention • Pre-eclamptic syndrome: etiology, clinical picture, diagnosis, complications and therapeutic principles of pre-eclampsia • Fetal growth disorders: etiology, diagnostic techniques and therapeutic approaches

PHYSIOLOGY AND FETAL PATHOLOGY

• Ultrasound diagnostics and fetal growth monitoring - Interpretation of ultrasound test results (morphology, fetal growth, placentation, amniotic fluid) - Alterations in defect or excess of fetal growth • Prenatal diagnosis indications and techniques - Genetic / malformative risk - Address to invasive and non-invasive prenatal diagnosis techniques - Therapeutic approaches of the identified pathologies • Marternal-Fetal Isoimmunization • Infections and pregnancy. - Principles of the prevention of infections of the TORCH group - Pathogenic effect on the fetus of infectious agents - Fundamentals of the interpretation of diagnostic tests (serological, ultrasound, invasive). - Therapeutic possibilities

GINECOLOGICAL PATHOLOGY

Elements of etiopathogenesis, diagnosis, differential diagnosis, general principles of therapy and gynecological emergencies derived from: • Menstrual cycle disorders • Amenorrhea and menometrorrhagia • Pelvic inflammatory disease and sexually transmitted diseases • Pelvic masses. differential diagnosis and diagnostic imaging (ultrasound in Gynecology) • Benign neoplasms of the ovary and genital endometriosis • Benign neoplasms of the uterus and uterine myomas • Malignant neoplasms of the female genital system: • Early diagnosis in the neoplasms of the lower genital tract - Malignant neoplasms of the ovary - Malignant neoplasms of the uterus - Malignant neoplasms of the vulva - Post-gestational trophoblastic disease: vesicular mole, corionepitelioma, placental site tumor

THEMES OF PECULIAR SOCIAL AND HEALTH INTEREST

• Methods for birth regulation and contraceptive techniques: indications and contraindications. Role of the activities of the • counseling in response to women's needs • Problems of pelvic dynamics: genital prolapse and urine continence. Diagnostic classification and principles of therapy • Couple infertility: diagnosis, etiopathogenesis, therapeutic possibilities and assisted procreation techniques • The neoplastic pathology of the breast: prevention, diagnosis and treatment.

## Prerequisites

Knowledge of the introductory courses indicated in the syllabus of the degree course

## Teaching form

Lectures, Internship, subject to any ministerial changes following the COVID pandemic situation

Lessons will be available also un the e-learning platform

## Textbook and teaching resource

1) Manuale di Ginecologia ed Ostetricia - EdiSES Giorgio Bolis Edizione II / 2017 ISBN: 9788879599269

2) Core Curriculum - Ostetricia e Ginecologia Ferrari - Frigerio. Editore:

Mcgraw-hill. Edizione: 2013 ISBN: 9788838639708

3) Compendio di Ostetricia e Ginecologia - Nappi - Tommaselli

Editore: IDELSON-GNOCCHI Edizione: 2015 ISBN: 9788879475952

4) Essential Obstetrics Gynaecology - FifthEdition Edited by Ian Symonds & Sabaratnam Arulkumaran/ 2013 ISBN:9780702030680

5) Obstetrics & Gynaecology Hannah Kither, Sarah Kitson, Louise Wan, Emma Crosbie. Edited by EUREKA 2017 ISBN: 9781907816987

6) Manuale di Sala Parto- Valle A, Bottino S, Meregalli V, Zanini A, Lissoni D, Locatelli A. Edi Ermes 2019 ISBN 9788870516753

## Semester

2nd Semester

## Assessment method

Single answer quiz with 5 answers, of which only one is correct, conditioning access to the Oral test, Oral exam

Oral test will be an interview discussing written test and course subjects

## Office hours

Only by appointment, please contact via mail

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