UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

E-Health, Digitalizzazione e Sistemi Informativi in Sanità

2627-1-K0103D005-K0103D00502

Aims

The training program will give the student the knowledge needed to manage the digital transition, promoting the use of e-health and integrated information systems. These technologies are presented as strategic tools to increase access to care, enhance the safety of care, and improve the efficiency of services in the obstetric-neonatal and gynecological areas.

Contents

Fundamentals of Digital Health. Evolution from electronic health (e-Health) to digital and mobile health (m-Health); the National Recovery and Resilience Plan (PNRR) and Mission 6 Health. Telemedicine. Models of tele-visit, teleconsultation, telemonitoring, and telecare in obstetrics for managing low-risk pregnancies and the postpartum period. The Electronic Health Record (EHR) and Health Dossier. The Electronic Medical Record (EMR). Cybersecurity and Data Protection. Artificial Intelligence (AI). Health Technology Assessment (HTA). Obstetric-neonatal and gynecological fields.

Detailed program

Conceptual and ecological evolution: from electronic health (e-Health) to digital and mobile health (m-Health). Electronic Health Record (EHR): Structure, regulatory evolution (EHR 2.0), care purposes, planning, and research. Clinical-legal differences with the Health Dossier. Electronic Medical Record (EMR): Standardization of languages, traceability requirements, digital signature, and integrity of the medical act. Cybersecurity and Data Protection: GDPR (EU Regulation 2016/679) applied to health and genetic data. Consent management, professional accountability, and prevention of data breaches in obstetric information systems. Telemedicine according to national guidelines and the implementing decrees of the PNRR. E-health and digital health applied to the obstetric

field for managing low-risk pregnancies (LRP) and postpartum: Teleconsultation: Remote monitoring of blood tests/ultrasound exams during the trimester. Teleconsultation: Synchronous/asynchronous collaboration between the local midwife and the Hub gynecologist. Telemonitoring: Remote monitoring of cardiotocographic or blood pressure parameters in selected cases. Tele-assistance: Remote support for breastfeeding, self-care in the postpartum period, and prevention of emotional distress. Artificial Intelligence (AI) in Obstetrics: Clinical decision support systems (CDSS), predictive algorithms for the risk of preterm birth or preeclampsia; ethical, deontological, and professional responsibility implications of using algorithmic systems.

Prerequisites

None

Teaching form

2 in-person lectures, 4 hours each.

Textbook and teaching resource

Mancarella M., Napolitano C. (2026) Cybersecurity nel sistema sanitario. Linee guida per il procurement. Carocci Editore

- AGENAS Agenzia Nazionale per i Servizi Sanitari Regionali. Indicazioni nazionali per l’erogazione di prestazioni in telemedicina. Accordo Stato-Regioni 17 dicembre 2020
- Decreto Ministeriale 77 del 23 maggio 2022 - Regolamento recante la definizione di modelli e standard per lo sviluppo dell'assistenza territoriale nel Servizio Sanitario Nazionale.

Semester

First year, second semester

Assessment method

Written exam with multiple-choice questions and oral exam

Office hours

By appointment, arranged with the teacher via email

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | INDUSTRY, INNOVATION AND INFRASTRUCTURE | REDUCED INEQUALITIES