



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

E-Health, Digitalisation and Health Information Systems

2627-1-K0102D005-K0102D00502

Aims

The course aims to provide students with theoretical and practical knowledge related to the digital transformation of healthcare systems, the main e-Health tools, and health information systems. Upon completion of the course, students will be able to understand the role of digital technologies in improving the quality of care, patient safety, healthcare organization, and decision-making processes. Students will develop the skills required for the critical and responsible use of digital innovations in clinical practice, healthcare management, and research.

Contents

Introduction to digital health and major e-Health models. Health information systems. Artificial intelligence in clinical and healthcare practice. Cybersecurity, data protection, and ethical issues related to digital transformation in healthcare.

Detailed program

The course explores the principles of digital transformation in healthcare systems and the concept of e-Health, analyzing the evolution of digital technologies applied to healthcare and care delivery. The main health information systems will be examined, including their characteristics and their role in the management of clinical, care-related, and organizational processes. The course will address healthcare data collection and management systems, as well as standards for information exchange and interoperability. Students will explore applications of telemedicine, telecare, and telemonitoring, examining their potential impact on healthcare delivery and patient management. The course will also present the opportunities and limitations of artificial intelligence, Big Data, and data analytics in healthcare. Finally, regulatory, ethical, and organizational aspects related to personal data protection, cybersecurity, health information governance, and digital innovation in healthcare settings will be discussed.

Prerequisites

As defined by the Academic Regulations.

Teaching form

Lectures.

Textbook and teaching resource

Provided by the teacher.

Semester

First year, second semester.

Assessment method

The assessment method will be communicated in detail by the teacher.

Office hours

By appointment, arranged via email with the teacher.

Sustainable Development Goals

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