



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Informatica Medica e Telemedicina

1819-2-H4101D242

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#### Aims

To provide basic elements and methodologies for understanding, organizing and structuring information in the field of medicine at various levels, from personal electronic medical records to hospital information systems.

Understanding the specificity of the medical language and coding, of clinical data bases and of remote consultation for telemedicine activities.

#### Contents

Nature, representation and management of medical data, information and knowledge.

Language, nomenclature and classification systems and standards in medicine

Telemedicine and internet for medical applications

#### Detailed program

- Medical Informatics concepts: Data, information and knowledge in medicine. Medical nomenclature and coding. Classifications systems in

medicine (ICD9-CM, SNOMED, Mesh, etc.)

- Medical record, Health booklet and Patient Data card. Clinical documents. Out-patient clinic card. Multimedia Medical record.
- Clinical and Health data-base: (Department, laboratory, out-patient's department, radiology, etc.), epidemiological registers.
- Elements of DBMS and programming tools for medical applications (es. SQL - Cachè, Ensemble, ecc). Clinical Workstation multimedia.
- Information systems in medicine and health (Hospital IS, clinical IS, PACS/RIS) and Information systems in healthcare (Health district, epidemiological IS, regional and national IS)
- Smart card technologies and applications in health services (CNS, CRS, CIE).
- Telemedicine and Internet in health: Definition and applications (clinical teleconsulting and teleradiology, health Telemonitoring and telehomecare). Telemedicina systems for Telecardiology, Teleradiology, Telepatology, Teleophthalmology, ecc. Sites web in medicine and portals in health (examples). Searches Engine and ontology in medicine.
- Sinergies between Medical Informatics, Bio and Neuroinformatics.

Elements and state of art.

## **Prerequisites**

## **Teaching form**

Front lectures

## **Textbook and teaching resource**

- Guida all'Informatica Medica, Internet e telemedicina (Enrico Coiera, Il Pensiero Scientifico Editore, Roma, 1999)
- Electronic Health Record, understanding and using Computerized Medical Records (Richard Garte, Pearson Education – Pearson Prentice Hall, New Jersey USA, 2007)

## **Semester**

## **Assessment method**

Group closing discussion

## Office hours

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