



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Sistemi Informativi

2021-1-F1801Q103

Aims

The student will be able to understand the relationships between the organizational, social, economic, business, technological aspects involved in the design of an IS, and will know how to use techniques and methods taken from the best methodologies for the design of business processes and the evaluation of the life cycle of information systems.

Contents

- Structure and goals of an information system (IS).
- Languages and notations for process and case modeling: BPMN and CMMN.
- Efficiency, effectiveness and sustainability of ISs and processes
- Intra-organization and Networked eBusiness ISs.

Detailed program

1. Introduction to Information Systems
 - a. Structure and goals of an Information Systems
 - b. Types of information systems
 - c. Emerging IT technologies
2. A language for process modeling
 - a. Business Process Modeling Notation
 - b. Case studies and exercises
3. Efficiency and effectiveness of Information Systems
 - a. Efficiency and effectiveness of Information Systems and processes
 - b. Efficiency and effectiveness assessment and improvement of processes
 - c. Case studies
4. eBusiness networked ISs: basics and introduction to the Boat framework
5. eBusiness networked ISs - the Boat framework: business, organization, architecture, technology issues. Case studies
6. Introduction to Service Science
7. A methodology for the life cycle of ISs
 - a. Phases of the methodology: assessment, design, production, costs, management
 - b. Case studies

Prerequisites

No one, but previous knowledge on ICT technologies such as Data Bases, Cloud, distributed operating systems, hardware platforms, application software are useful.

Teaching form

Teaching is provided in Italian for master's degree courses in Data Science, Computer Science, and Theory and Communication Technologies (TTC).

Problem posing and solving, Lecture-based, Lab sessions, individual and group projects, with and without reward.

In case of COVID-19-related emergency, the frontal and laboratory lessons will be mainly synchronous via Google Meet or equivalent platform as indicated in the course Web site.

Textbook and teaching resource

- slideware handouts

- prerecorded audio/video lessons

textbooks:

Carlo Batini (2020) Come si progetta un Sistema Informativo - How to design an Information System

(shared by the teacher)

Pernici (2020) Fondamenti di Sistemi informativi per il Settore dell'Informazione ESERCIZIARIO (per BPMN)

(condiviso dal docente)

Semester

second semester of the first year.

Assessment method

The examination consists of a written exam, a project report and oral discussion of the content of the report. In particular, the report may also be produced by groups of two-four people and may be of different types, subject to agreement with the teacher.

- 1) thesis or in-depth written discussion of a series of scientific articles (presentation of topics not covered in the lecture).
- 2) case analysis (description of the situation or real example of which the interconnections between the different elements/variables are analysed in the light of one or more theoretical paradigms)
- 3) project work (development of an original project from a simple idea or analysis of an existing case)
- 4) BPMN or CMMN model of realistic complexity from a real case.

Office hours

by appointment and at the end of the lessons.
