



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Information Technology and Programming Language Laboratory - 2

2122-2-E1803M102-T2

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#### Learning objectives

Nowadays companies, whose success depends on the effective use of digital innovation, need resources both competent in terms of technological knowledge and aware of the impact deriving from the use of new technologies on operational and strategic management. The course aims to provide students with a general understanding of the issues related to technological innovation in financial companies and society, data and information management, the Internet, digital business models, business information systems and their organisational and management implications. The course also aims to teach students to apply their newly-acquired knowledge in the business context, formulating interpretations and independent judgements, and in an academic context, when taking other courses on the linguistics degree programme and with a view to advancing their studies further in the field of corporate information systems.

At the end of the course, students will:

- know and understand the main trends in the digital world and their impact on companies and society;
- appreciate the relevance of digital tools for business activities and processes, with particular regard to marketing and communication;
- apply the knowledge acquired during the course according to a professional approach aimed at designing new business models that enhance people, processes and technological infrastructures in a synergic and systemic perspective;
- interpret and make independent judgments, also regarding IT security, ethical and social issues generated by the use of technologies;
- acquire technical language that enables effective communication with both people with advanced technical

and IT skills and with end users;

- develop good learning skills that allow students to undertake more advanced studies related to company information systems with greater autonomy.

## Contents

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## Detailed program

*Introduction to the role of technologies in the business world* as a fundamental component for successful organizations;

*New digital trends*: digital transformation processes in companies and technological evolution in the information society;

*Ethical and social aspects of the digital economy*: ethical issues generated by the use of technologies and fundamental principles of computer security;

*From data to knowledge*: systems for data organisation and management, for the research and processing of information to support decision-making activities, with particular emphasis on the management of Big Data and Data Analytics activities;

*Digital markets and platforms*: Internet, e-business, corporate networks and business change;

*New media and digital marketing*: strategies and tools for online communication and promotion, customer experience;

*New digital skills*: evolution of skills in companies as a result of recent technological transformations and development of new professional figures in the digital environment;

*Introduction to corporate information systems*: outline of corporate architectures supporting the operational, tactical and strategic needs of companies.

## Prerequisites

Final assessment is subject to previous registration of Statistica I.

## Teaching methods

Lectures with examples and case studies developed in the classroom, speeches by experienced guests from

companies, laboratories.

## **Assessment methods**

The exam consists of a written test that includes open-ended and multiple-choice questions. Optionally, an oral integration may be required.

## **Textbooks and Reading Materials**

J. Valacich-C. Schneider-A. Carignani-F. Rajola-V. Gemmo, Sistemi Informativi e Trend Digitali, Pearson Italia, 2019.

Lecture support material is available on e-Learning platform. The lecturer will post the slides used in the classroom, in-depth study material on the most significant topics of the course, the reading list, some articles and the suggested webography.

## **Semester**

First semester.

## **Teaching language**

Italian.

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