UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Information Systems for Knowledge Management

2425-2-F5701R010

Course title

INFORMATION SYSTEMS FOR KNOWLEDGE MANAGEMENT

Topics and course structure

The Digital Workplace: ICT for communication, collaboration, and organizational development. After analyzing the main instruments to support knowledge management, the course aims to outline the organizational impact of the digital tools techniques and practices for learning, communicate and collaborate inside organizations.

Objectives

The aim of the course is to promote the following learning outcomes:

- Knowledge and understanding of the relationship between technology and the organization;
- Capacity to relate different knowledge management methods and models;
- Ability to apply knowledge and models related to technology adoption within organizations.

The course aims to develop the following key skills:

- theoretical models, tools and methods of organizational analysis;
- policies, practices and human resource management systems;
- theoretical models, tools and methods for managing organizational change;
- theoretical models, tools and methods for the analysis and interpretation of social, cultural, national, international and global changes;

- specific language skills, with particular reference to the English language.

The course contributes to the training of the specialist profile of work organization

Methodologies

- Teaching time: 48 hours.
    - In-class lecture (to introduce theoretical models, tools and methods of organizational analysis);
- Interactive teaching: 8 hours.
- Videoconferencing, Online discussion; Online activities (to facilitate the learning and understanding of the relationship between technology and the organization and communication skills);
- Analysis of case studies (to train the ability to apply knowledge and models related to technology adoption within organizations).

Remote activities are not planned, except in exceptional circumstances.

Online and offline teaching materials

- Presentations;
- Lecture notes;
- Study cases;
- Videos.

Programme and references

Information and IT systems

- Resources and business processes
- Components and main types of information systems
- Identify the information system and the computer system
- Main problems related to the management of information systems
- Networks and the Internet
- Outsourcing
- ERP
- IT solutions
- Office automation
- Decision support
- Company databases
- Supply chain
- CRM
- Dematerialization of documents
- Examples of company management contexts

From data to knowledge

- Data and information

- Software life cycle
- Knowlwdge worker
- Classification and characteristics of information systems

Organizational models and IT solutions
THE SECI MODEL
MODELS OF SOCIAL INTERACTION
THE LIFE CYCLE OF KNOWLEDGE
ICT SOLUTIONS FOR THE MANAGEMENT OF INTELLECTUAL CAPITAL
TREATMENT OF SILENT AND IMPLIED KNOWLEDGE

- Knowledge acquisition applications
- Communication, collaboration systems and groupware
- Adaptive systems and multimodal and multichannel interfaces
  THE TREATMENT OF KNOWLEDGE IN SEMI OR NON-STRUCTURED FORMAT
- Natural language processing
- Information retrieval
- Knowledge discovery in text
- Document and content management
- Case based reasoning
  THE TREATMENT OF KNOWLEDGE IN STRUCTURED FORMAT
- Database, data warehouse and OLAP
- Knowledge discovery in data: data, web, log, usage, mining
  THE BASIC INFRASTRUCTURE
- Internet and intranet
- Enterprise knowledge portal
  TECHNOLOGIES FOR EXTRACTION AND INTEGRATION
- Integration of heterogeneous information sources
- Wrapping crawling
- Information extraction
  TECHNOLOGIES FOR THE REPRESENTATION OF KNOWLEDGE
- Ontologies and knowledge representation and reasoning
- Workflow
- Web services and service oriented architecture
- Agents
  COMPLEX APPLICATIONS
- Help – desk applications and customer relationship management
- Business process re – engineering
- Decision support systems
- E-learning

Materials provided by the teacher.

Assessment methods

Multiple choice questions and open ended questions in computer-based summative assessments.
Time trial.

Office hours

Contact by e-mail to the ddress sergio.moriani@unimib.it.
Videoconference if necessary.

Programme validity

Two Academic Years

Course tutors and assistants

No one.

Sustainable Development Goals

AFFORDABLE AND CLEAN ENERGY