UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# SYLLABUS DEL CORSO

## Gestione della Conoscenza

**2122-1-F9201P027**

### Aims

The student will acquire specific notions and competences to contribute in a critical and proactive way to the design of technological and organizational solutions aiming at the promotion of knowledge management within organizations and communities of practice.

### Contents

The course deals with the issue of knowledge management starting from the historical and organizational context in which it was conceived and developed. The course critically describes the main kinds of technological solutions that have been developed to support knowledge management in different organizations and in Communities of Practice. The course discusses and compares case studies to show how the different contexts require the design of technological solutions tailored to the specific needs of the involved community of practice. The course presents various examples of technologies for supporting the circulation and sharing of knowledge within organizations and real communities.

### Detailed program

- Motivations, history and basic concepts of Knowledge Management (KM).
- The model of creation and circulation of tacit and explicit knowledge by Nonaka and Takeuchy.
- The Communities of Practice (CoP Wenger).

- From Document Management Systems (DMS) to Knowledge Management Systems (KMS). How to stimulate the circulation and sharing of information and knowledge in organizations: some problems and issues, and an example of prototypal system.
- Knowledge Management and Knowledge Based Systems
- Rule-Based and Case-Based Reasoning as tools for knowledge representations and sharing
- Social media use in organizations.
- Presentation, discussion and comparison of some case studies of KMS in real organizations.
- Ontologies as tool for knowledge representation and sharing: a critical view.

- Expertise management: an example (DEMOIR).
- ConsiderIt: an example of technology supporting the circulation and sharing of different opinions among citizen during ballots.

## Prerequisites

The course does not require specific prerequisites, but for a basic knowledge about Information and Communication Technologies (ICT). However, it is important that the student owns a specific interest in the themes of the course which combines technological aspects with issues related to the organizational or social context in which the technology is put to work.

## Teaching form

Videoconferences and recorded lessons, seminars of experts, and collective discussions of themes during the lectures, recitations, practical examples discussed during the laboratory

## Textbook and teaching resource

- Prusak, L. Where did knowledge management come from?, IBM Systems Journal, vol.40, n. 4, 2001, pp. 1002-1007.

- Chapter 3 of the book:Takeuchi I., Nonaka H., The Knowledge creating Company: How Japanese Companies Create the Dynamics of Innovation, Oxford University Press, 1995. (available on-line)

- Chapters 1 & 2 of the book: Wenger, E., Community of Practice: Learning, meaning and identity, Cambridge University Press, Cambridge, MA 1998. (available on-line in Italian).
- Agostini, A., Albolino, S. Boselli, R., De Michelis, G, De Paoli, F., Dondi R. Stimulating Knowledge Discovery and Sharing, In Proceeding of GROUP'03, November 9–12, 2003, Sanibel Island, Florida, USA, ACM.
- Treem J.W., Leonardi P.M. Social Media Use in Organizations: Exploring the Affordances of Visibility, Editability, Persistence, and Association. Communication Yearbook, 36, pp. 143-189
- S. Bandini, "KM: l'eredità dei sistemi esperti" Mondo Digitale, 2008 (in Italian)

- OECD: Organisation for Economic Co-operation and Development; Global Science Forum Report on Applications of Complexity Science for Public Policy: New Tools for Finding Unanticipated Consequences and Unrealized Opportunities, 2008 - http://www.oecd.org

- Catherine Roussey, Francois Pinet, Myoung Ah Kang, Oscar Corcho, Ontologies in Urban Development Projects, Advanced Information and Knowledge Processing, DOI 10.1007/978-0-85729-724-2_2, Springer-Verlag London Limited 2011

- F Kensing, J Blomberg, Participatory Design: Issues and Concerns, Computer Supported Cooperative Work 7: 167–185, 1998, Kluwer Academic Publishers.

- Chapters 1, 2, 4, & 5 of the book: Dan Saffer, Designing for Interaction, 2nd Edition, New Riders

- Agostini, A., De Michelis, G., Susani, M. From user participation to user seduction in the design of innovative user-centered systems. In Proceedings of the Fourth International Conference on the Design of Cooperative Systems, Sophia Antipolis , France, 23-26 May 2000.

- Yimam, D., Kobsa, A. DEMOIR: A Hybrid Architecture for Expertise Modeling and Recommender Systems 2000, IEEE

The complete material is available in the e-learning area of the course

## Semester

2nd Semester

## Assessment method

During the Covid the assessment includes an oral examination.

## Office hours

The student can contact the teachers by email in order to fix an appointment