

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# **COURSE SYLLABUS**

# Information and Knowledge Management

2425-1-F6302N016-F6302N018M

### Learning objectives

Knowledge and understanding

The course aims to learn some web technologies (social media and beyond) to support digital services (public and private) and corporate strategies. In addition, the course offers the opportunity to learn how to use text analytics softwares.

Applying knowledge and understanding

Provided practical exercises on cases to be studied individually or in groups through the use of web technologies, aimed at the production of documents being evaluated.

#### **Contents**

- · Social media
- · Digital services
- Big Data
- · Social media analysis
- · Social media marketing
- · Text Mining and Text Analytics

### **Detailed program**

1. Digital services and Social Media

- 2. Big Data
- 2.1 Unstructured data
- 3. Social Media Marketing, strategies
- 3.1 Brand reputation
- 3.2 Influencer Marketing
- 3.3 Engagement Marketing
- 4. Introduction to Social Media Analytics
- 4.1 Metrics and techniques
- 5. Techniques for processing unstructured data
- 6. Text Mining with software (Rapidminer and Orange)
- 7. Text Mining laboratory

### **Prerequisites**

Good skills in learning, writing and speaking, together with a general knowledge about the main technologies and applications of Computer Science. Basic knowledge of the Office package.

#### **Teaching methods**

The course is delivered in Italian and includes lectures and exercises.

The lectures are dedicated to the study of the theoretical topics related to the course.

The exercises are aimed at using tools to analyze unstructured data (texts), in particular to perform Text Mining techniques on data scraped from the web.

In detail:

- 16 2-hour lectures delivered in face-to-face delivery mode;
- 8 2-hour tutorials in interactive face-to-face mode.

During the exercises, the lecturer starts with a part in which concepts are exposed (delivery mode) and then opens up an interaction with the students that defines the next part of the lesson (interactive mode).

#### Assessment methods

The verification method is based on a written test.

The written test takes place at the computer and it consists of 3 open (short essays) and 10 closed questions with multiple answers (TRUE/FALSE). Open questions aim to evaluate the reasoning and critical discussion skills of a topic. The closed questions aim to evaluate the preparation on all the topics of the course. Open questions have a greater weight in the calculation of the final grade.

The evaluation is focused on the student's ability to answer to specific questions by referring both to the theoretical and practical aspects (through examples) connected to the requested topic.

The test is common for both attending students and non-attending students.

There are no intermediate tests.

During the course, students are invited to carry out a project in a group, it is not mandatory, whoever completes it will have a few more points in the exam. Non-attending students can freely choose whether to carry out the project.

## **Textbooks and Reading Materials**

- 1. M. Mezzanzanica, D. Cavenago, "Scienza dei servizi Un percorso tra metodologie e applicazioni", Springer-Verlag Italia, (2010) [ISBN: 978 88 470 1363 6];
- 2. V. Cosenza, "Social media ROI", Apogeo, 2012, ebook available on internet, chapters: 1, 2, 4, 5 (the basic concepts).

Further material (slides and papers on specific topics) is available on the elearning page of the course.

#### **Sustainable Development Goals**

INDUSTRY, INNOVATION AND INFRASTRUCTURE