Introduction to databases – lecture and laboratory
A.Y. 2011/2012 – Curriculum BIB

Faculty: Faculty of Education – Bachelor in Multilingual Communication
Address: Regensburger Allee / Viale Ratisbona 16 – 39042 Brixen / Bressanone
Course Year: 3rd Year - BIB
Semester: 1st (26.09.2011 - 21.01.2012)
Exam Code: 17128

Scientific Area: INF/01
Lecturer: Dr. Molinari Andrea – non-academic teaching staff

Module: Yes – Total number of modules: 3

Credit Points: 5 CP
Total Lecture Hours: 30
Total Laboratory Hours: 20
Total hours of self-study and / or other individual educational activities: 75

Attendance:
Optional

Teaching Language:
English

Propaedeutic Course:
None

Course Description:
The course is an introduction to data management, included both structured data (like records, files, data structures, databases) and unstructured data (documents, email, data coming from web 2.0 services and knowledge bases).
For the first category of data, the modern tools for data management will be presented, with specific examples taken from the field of library science: database typologies, structures, characteristics and querying languages. Differences between a number of catalogues, search engines and databases will be explored in relation to access and technical support. A detailed analysis of search strategies and methodologies will be included in the course. An introduction to basic concept of data representation will be given in order to align the language of participants to standard ICT vocabulary.
For unstructured databases, the different tools and techniques for organizing and managing this data will be presented, in terms of systems available (information retrieval and knowledge maangement systems), in terms of query languages and results obtainable from these systems.
Freely available as well as commercial products currently offered on the market will be presented and examined through an interdisciplinary approach.
The course will consider a number of issues such as the use of databases as search tools in the provision of information in libraries, the use, description and evaluation of selected database sources, bibliography management, search techniques and behaviour.

Educational Objectives – Expected Learning Outcomes:
Upon completion of the course students will be able to efficiently evaluate the quality of databases, choose them according to their specific information needs, extract data from databases and use them effectively. The knowledge acquired will enable students to perform a variety of tasks in libraries, and to be autonomous in organizing and management datasources of structured and unstructured data.

Students will be able to describe selected database resources correctly and to apply search strategies efficiently on the basis of typologies.

Teaching Methods:
Traditional

Teaching Format:
Lecture + Laboratory

Assessment:
Written exam

Required Readings:
Slides provided by the teacher

Supplementary Readings:
Supplied by the teacher during lectures