



COURSE PRESENTATION FORM

COURSE NAME	Knowledge Bases and Databases - Stream, Level A
COURSE CODE	
LECTURER	Diego Calvanese
TEACHING ASSISTANT	To be determined
TEACHING LANGUAGE	English
CREDIT POINTS	4
LECTURE HOURS	24
EXERCISE HOURS	12
OFFICE HOURS	Friday, 15:00-17:00, Office 219, POS Building 2 nd floor
LECTURER	
OFFICE HOURS	
TEACHING ASSISTANT	
PREREQUISITES	Notions about first-order logic as taught in an introductory BSc course on Logic; notions about relational databases as taught in an introductory Bsc course; attendance of a course on Knowledge Representation is an advantage, but not strictly required.
OBJECTIVES	The aim of the course is to provide students with an understanding of the formal foundations of advanced topics in databases, and in particular in the application of techniques developed in knowledge representation to classical data management problems.
SYLLABUS	The lectures cover the problems of management of incomplete and inconsistent data, information integration, ontology mediated information access, reasoning about queries, and query reformulation.
TEACHING FORMAT	The course is organized as frontal lectures on the course topics complemented by monographic seminars that serve as a starting point for discussing the techniques involved. During lab sessions the students will familiarize with the usage and internals of state-of-the-art tools for managing and querying relational data sources in the presence of constraints (e.g., expressed through an ontology), and will work on a project.
ASSESSMENT	The exam consists of: - a project [59 % of mark] + a final oral exam [41 % of mark] Both parts have to be passed to pass the exam. In case of a positive mark, the project will count for all 3 regular exam sessions of the Academic Year (i.e., if the student fails the oral exam, he keeps the project and only needs to retake the oral exam).
READING LIST	Lecture notes and reading material covering the course topics will be provided during the course. Additional reading material will be assigned



FREIE UNIVERSITÄT BOZEN

LIBERA UNIVERSITÀ DI BOLZANO

FREE UNIVERSITY OF BOZEN - BOLZANO

Fakultät für Informatik

Facoltà di Scienze e Tecnologie informatiche

Faculty of Computer Science

SOFTWARE USED	on an individual basis, depending on the assigned project. Protégé ontology editor. MySQL database engine. Ontology-based Data Access Tool.
LEARNING OUTCOME	Students will acquire an understanding of the advanced languages, methodologies, and the use of knowledge representation techniques for accessing and querying information sources.
COURSE PAGE	http://www.inf.unibz.it/~calvanese/teaching/kbdb/