



COURSE PRESENTATION FORM – ACADEMIC YEAR 2010/2011

COURSE NAME	Data Warehousing and Data Mining
COURSE CODE	70102 (MSc 509) / 72002 (MSc 270)
LECTURER	Mouna Kacimi and Johann Gamper
TEACHING ASSISTANTS	Mouna Kacimi
TEACHING LANGUAGE	English
CREDIT POINTS	8
LECTURE HOURS	48
EXERCISE HOURS	24
TIME SPAN	27.09.2010 - 21.01.2011
TIME TABLE	See Timetable Page
OFFICE HOURS LECTURER	Mouna Kacini: During the lecture time, TBD, Faculty of CS, POS Building, piazza Domenicani 3 , office 2.16 Johann Gamper: During the lecture time, TBD, Faculty of CS, POS Building, piazza Domenicani 3 , office 2.15
OFFICE HOURS TEACHING ASSISTANT	See above.
PREREQUISITES	Programming, Basic Probability Theory and Statistics
OBJECTIVES	Enable students to understand and implement classical algorithms in data mining and data warehousing; students will be able to assess the strengths and weaknesses of the algorithms, identify the application area of algorithms, and apply them.
SYLLABUS	<ul style="list-style-type: none">• Data Analysis and Uncertainty• Classification & Prediction• Cluster Analysis• Mining Frequent Patterns & Association rules• Data warehousing• SQL OLAP extensions• Multi-dimensional Join• Data warehouse performance
TEACHING FORMAT	Classroom lectures and project
ASSESSMENT	The assessment of the course consists of its two parts:



- project (60%)
- theory (40%)

The project work is assessed through presentation, demo and final report. The theory is assessed with an oral exam.

Each part is graded up to 30 points and both parts must be passed (at least 18 points). $\text{final_grade} = \text{project_grade} * 0.6 + \text{oral_exam_grade} * 0.4$.

The project duration is limited. Thus, if a student fails the project part, he has to do a new project for the next exam session. In this case, the teaching assistant does not guarantee support for supervising the students.

READING LIST

Textbooks:

- Jiawei Han and Micheline Kamber, "Data Mining: Concepts and Techniques", Second Edition, 2006
- Pang-Ning Tan, Michael Steinbach, and Vipin Kumar, "Introduction to Data Mining", Pearson Addison Wesley, 2008, ISBN: 0-32-134136-7
- Margaret H. Dunham, "Data Mining: Introductory and Advanced Topics", Prentice Hall, 2003

SOFTWARE USED

- Weka: Data Mining Software in Java.

LEARNING OUTCOME

In-depth understanding of the main algorithms in Data Warehousing and Data Mining.

COURSE PAGE

<http://www.inf.unibz.it/dis/teaching/DWDM/>