



COURSE PRESENTATION FORM – ACADEMIC YEAR 2010/2011

COURSE NAME	Digital Libraries
COURSE CODE	70165 (BSc and MSc 509) / 72043 (MSc 270)
LECTURER	Vittore Casarosa
TEACHING ASSISTANTS	Luigi Siciliano
TEACHING LANGUAGE	English
CREDIT POINTS	4
LECTURE HOURS	24
EXERCISE HOURS	12
TIME SPAN	27.09.2010 - 21.01.2011
TIME TABLE	See Timetable Page
OFFICE HOURS LECTURER	During the lecture time, on Monday, preferably by appointment, Faculty of CS, POS Building, piazza Domenicani 3 , office 2.10
OFFICE HOURS TEACHING ASSISTANT	During the lecture time, by appointment, Faculty of CS, POS Building, piazza Domenicani 3 , office 2.10
PREREQUISITES	Basic understanding of computer fundamentals, networking fundamentals, representation of digital information.
OBJECTIVES	<p>The course aims at providing a conceptual framework for digital libraries, illustrating the main entities of the Digital Libraries Universe and their relationships.</p> <p>It will review how technologies can enhance the way in which users create and access digital content, including efficient information description, retrieval and services to improve interaction and usability.</p>
SYLLABUS	<ul style="list-style-type: none">• <i>Basic concepts:</i> Evolution of libraries and information technologies; Components of a Digital Library; Basic concepts underlying a Digital Library Model; A simple Digital Library Architecture; Implementation examples.• <i>Information Representation and Access:</i> Textual information; audio, image and video information; querying; textual and multimedia search and retrieval; ranking of results; relevance feedback; search engines.• <i>Information Discovery:</i> Metadata and interoperability problems; major metadata standards for libraries and archives; OAI model and the OAI-PMH protocol; knowledge representation and RDF model.



- *Additional topics:* Personalization; visualization tools; virtual collections; collaborative tools; introduction to digital preservation; security, authentication and authorization; intellectual property rights and DRM.
- *Laboratory:* Hands-on with an existing Digital Library system; Simple exercises on the concepts learned during the lessons; Implementation of a simple Digital Library.

TEACHING FORMAT

Frontal lectures, labs and a small project in teams.

ASSESSMENT

- Final oral exam 70%
- Project and Lab 30%

READING LIST

- Ian Witten, David Bainbridge, How to build a Digital Library, Morgan Kaufmann, 2003, ISBN 1-55860-790-0
- Michael Lesk, Understanding Digital Libraries, 2004 (Second Edition), Morgan Kaufmann, ISBN 1-55860-924-5
- Material taken from the Web and material provided by the lecturer.

SOFTWARE USED

To be downloaded from the Network. Will be specified during the Lab hours.

LEARNING OUTCOME

Upon successful completion of the course students will be able:

- To have a better understanding about the impact of the digital environment on the role of the information professional in the Information Society;
- To select appropriately from different technologies and procedures;
- To make appropriate judgments about information architecture and user needs;
- To relate technology to service needs and management issues, especially management of change;
- To plan, develop and manage a digital library programme.

COURSE PAGE

www.nmis.isti.cnr.it/casarsa/FUB-DL/