Syllabus
Course description

Course title	Information Systems and Data Management
Course code	27006
Scientific sector	ING-INF/05
Degree	Bachelor in Economics and Management
Semester and academic year	2nd semester 2017-2018
Year	1
Credits	5
Modular	No

Total lecturing hours	50
Total lab hours	0
Total exercise hours	50
Attendance	not required; for non-attending students additional study material which covers the entire course is available
Prerequisites	English understanding and reading at level B2. Basic computer usage, in particular Microsoft Windows and file handling.
Course page	www.paolocoletti.it/informationsystems27006

Specific educational objectives	The course is designed to acquire further computer skills, in particular to raise average skills in their basic computer, network usage and data organization, to provide knowledge of legal requirements when handling data, basic data organization and extraction techniques.

Lecturer	Paolo Coletti Office E 203 Paolo.coletti@unibz.it tel. 0471 013497 www.paolocoletti.it
Scientific sector of the lecturer	ING-INF/05
Teaching language	English
Office hours	please refer to the lecturer's timetable
Lecturing assistant	none
Teaching assistant	tbd
Office hours	please refer to the teaching assistants' timetables
List of topics covered	File handling, basic computer usage, Windows, computer networks and security requirements. Microsoft Excel, basic graphs, formulas, functions, financial and statistical Excel applications. Functions with VBA. Relational databases. Microsoft Access, relations, queries, summary queries, forms, reports.

Teaching format	Frontal lectures in standard classroom with examples and class exercises. Students follow the lesson through their own notebooks and/or repeat the lesson at home using provided videos. Interactive exercises in standard classroom and in computer room held by the teaching assistants.

Learning outcomes	Knowledge and understanding: • Basic knowledge of computer network system • Knowledge of threats, security and legal obligations of automatic data handling • Deep knowledge of a spreadsheet program with financial functions • Knowledge of a relational database organization • Basic knowledge of database interaction through queries, summary queries, forms and reports Applying knowledge and understanding: • Basic usage of Windows file and cryptographic systems • Advanced ability to analyse and organize economic datasets through spreadsheets • Ability to perform financial calculations with a spreadsheet program • Very basic programming • Ability in data organization through a relational database • Ability in data extraction from a database management program Making judgments • Distinguish software types and licences formats • Decide which techniques to use when organizing data Communication skills • Building efficient and appropriate graphs • Building data summaries Learning skills • Extending Excel functions through VBA • Understanding advanced database structures

Assessment	1. Written true/false test to assess knowledge on basic computer usage, computer networks and security requirements. May be replaced by a mid-term. 2. Practical assessment to test data organization, handling and modification through Excel and its financial functions. May be replaced by a mid-term. 3. Written assessment to test abilities to understand a basic data organizational problem and build and describe an appropriate relational database. May be replaced by a mid-term. 4. Practical assessment to test data extraction and

	handling ability on Access.
Assessment language	English
Evaluation criteria and criteria for awarding marks	Grade is the weighted average of assessment 1 (20%), assessment 2 (40%), assessment 3 (20%), assessment 4 (20%). File handling and severe basic computer errors count negatively on the final grade. Particular emphasis is given to solutions which are optimal, efficient and extensible. To be sufficient, student must have a weighted average of at least 60%.

Required readings	• Basic Computer course book, available on www.paolocoletti.it/informationsystems27006 • Videos on Excel, databases and Access available on www.paolocoletti.it/informationsystems27006 • Excel 2007 for dummies, Greg Harvey, ISBN 978-0-470-03737-9 • Excel 2007 Data Analysis for dummies, Stephen Nelson, ISBN 978-0-470-04599-2 • Databases course book, available on www.paolocoletti.it/informationsystems27006
Supplementary readings	• Financial Modeling, Simon Benninga, The MIT Press, ISBN 0-2620-2482-9 • Networking for dummies, Doug Lowe, ISBN 0-7645-1677-9 • Networking: A Beginner's Guide, Bruce Hallberg, McGraw Hill, ISBN 0-0722-2563-7 • Sams Teach Yourself Microsoft Office Access 2003 in 24 Hours, Alison Balter, ISBN 0-6723-2545-4