

## Syllabus

### Course description

<b>Course title</b>	Information Systems and Data Management
<b>Course code</b>	27000
<b>Scientific sector</b>	ING-INF/05
<b>Degree</b>	Bachelor in Economics and Social Sciences
<b>Semester and academic year</b>	1st semester 2018-2019
<b>Year</b>	2
<b>Credits</b>	3
<b>Modular</b>	No
<b>Total lecturing hours</b>	30
<b>Total lab hours</b>	0
<b>Total exercise hours</b>	18
<b>Attendance</b>	suggested, but not required; for non-attending students additional study material which covers the entire course is available on the course's website
<b>Prerequisites</b>	English understanding and reading at level B2. Basic computer usage, in particular Microsoft Windows and file handling.
<b>Course page</b>	<a href="http://www.paolocoletti.it/27000">www.paolocoletti.it/27000</a>
<b>Specific educational objectives</b>	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.
<b>Lecturer</b>	Paolo Coletti Office E 203 <a href="mailto:Paolo.coletti@unibz.it">Paolo.coletti@unibz.it</a> tel. 0471 013497 <a href="http://www.paolocoletti.it">www.paolocoletti.it</a>
<b>Scientific sector of the lecturer</b>	ING-INF/05
<b>Teaching language</b>	English
<b>Office hours</b>	please refer to the lecturer's timetable
<b>Lecturing assistant</b>	none
<b>Teaching assistant</b>	Alessio Brutti
<b>Office hours</b>	please refer to the teaching assistant's timetable
<b>List of topics covered</b>	File handling, basic computer usage, Windows, computer networks and security requirements. Bitcoin and blockchain. Microsoft Excel, basic graphs, formulas, functions. Microsoft Access, queries.
<b>Teaching format</b>	Frontal lectures in standard classroom, frontal lectures in computer lab with examples and exercises assigned in

	class, interactive exercises in standard classroom and in computer room held by teaching assistant.
<b>Learning outcomes</b>	<p>Knowledge and understanding:</p> <ul style="list-style-type: none"> <li>• Basic knowledge of computer network system</li> <li>• Knowledge of threats, security and legal obligations of automatic data handling</li> <li>• Deep knowledge of a spreadsheet program</li> <li>• Basic knowledge of database interaction through queries</li> <li>• Basic knowledge of blockchain emerging technology</li> </ul> <p>Applying knowledge and understanding:</p> <ul style="list-style-type: none"> <li>• Basic usage of Windows file and cryptographic systems</li> <li>• Advanced ability to analyse and organize economic datasets through spreadsheets</li> <li>• Ability in data extraction from a database management program</li> <li>• Potential social benefits and threats of cryptocurrencies and blockchain technology</li> </ul> <p>Making judgments</p> <ul style="list-style-type: none"> <li>• Distinguish software types and licences formats</li> <li>• Decide which techniques to use when organizing data</li> </ul> <p>Communication skills</p> <ul style="list-style-type: none"> <li>• Building efficient and appropriate graphs</li> <li>• Building data summaries</li> </ul> <p>Learning skills</p> <ul style="list-style-type: none"> <li>• Extending Excel functions though usage of online help</li> </ul>
<b>Assessment</b>	<ol style="list-style-type: none"> <li>1. Written test to assess knowledge on cryptocurrencies and Blockchain technology, basic computer usage, computer networks and security requirements. Mid-term as alternative.</li> <li>2. Practical assessment to test data organization, handling and modification through Excel. Mid-term as alternative.</li> <li>3. Practical assessment to test data extraction and handling ability on Access.</li> </ol>
<b>Assessment language</b>	English
<b>Evaluation criteria and criteria for awarding marks</b>	<p>Grade is the weighted average of assessment 1 (30%), assessment 2 (60%), assessment 3 (10%). File handling and severe basic computer errors count negatively on the final grade.</p> <p>Particular emphasis is given to solutions which are optimal, efficient and extensible.</p>
<b>Required readings</b>	<ul style="list-style-type: none"> <li>• Basic Computer course book, available on <a href="http://www.paolocoletti.it/27000">www.paolocoletti.it/27000</a></li> <li>• Videos on blockchain, Excel, databases and Access, available on <a href="http://www.paolocoletti.it/27000">www.paolocoletti.it/27000</a></li> </ul>

<b>Supplementary readings</b>	<ul style="list-style-type: none"><li>• Databases course book, available on <a href="http://www.paolocoletti.it/27000">www.paolocoletti.it/27000</a></li><li>• Excel 2007 for dummies, Greg Harvey, ISBN 978-0-470-03737-9</li><li>• Excel 2007 Data Analysis for dummies, Stephen Nelson, ISBN 978-0-470-04599-2</li><li>• Networking for dummies, Doug Lowe, ISBN 0-7645-1677-9</li><li>• Networking: A Beginner's Guide, Bruce Hallberg, McGraw Hill, ISBN 0-0722-2563-7</li><li>• Sams Teach Yourself Microsoft Office Access 2003 in 24 Hours, Alison Balter, ISBN 0-6723-2545-4</li></ul>
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