

## 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 2022-2023
<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 will be provided on the course's website on OLE
<b>Prerequisites</b>	English understanding and reading at level B2. Basic computer usage, in particular Microsoft Windows and file handling.
<b>Course page</b>	The course page will be available from OLE when the course will start. For some extra video materials on lab parts, see <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 computer basics, network usage, and data organization, to provide knowledge of legal requirements when handling data, basic data organization, and extraction techniques.
<b>Lecturer</b>	Andrea Molinari Office E 310 (on office hours) <a href="mailto:Andrea.Molinari@unibz.it">Andrea.Molinari@unibz.it</a> <a href="https://www.unibz.it/en/faculties/computer-science/academic-staff/person/3420-andrea-molinari">https://www.unibz.it/en/faculties/computer-science/academic-staff/person/3420-andrea-molinari</a>
<b>Scientific sector of the lecturer</b>	ING-INF/05
<b>Teaching language</b>	English
<b>Office hours</b>	9 hours, will be planned in calendar before the start of the course.
<b>Lecturing assistant</b>	None
<b>Teaching assistant</b>	tbd
<b>Office hours</b>	--
<b>List of topics covered</b>	<ul style="list-style-type: none"> <li>File handling, basic computer usage, Windows, computer networks and security requirements,</li> </ul>

	<p>data management, information systems</p> <ul style="list-style-type: none"> <li>• Microsoft Excel, graphs, formulas, functions, data management in Excel</li> <li>• Microsoft Access basic, querying a database.</li> </ul>
<b>Teaching format</b>	<p>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.</p>
<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 data management</li> </ul> <p>Basic knowledge of information systems</p> <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>• Information systems and their role in modern organization</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 theoretical concepts (basic computer usage, computer networks and security requirements etc.).</li> <li>2. Practical assessment to test data organization, handling and modification through Excel.</li> <li>3. Practical assessment to test data extraction and handling ability on Access.</li> </ol> <p>The possibility of having mid-terms on item 1 and 2 will be evaluated during the course.</p>
<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 (50%), assessment 3 (20%). File handling and severe basic computer errors count negatively on the</p>

	<p>final grade.  Particular emphasis is given to solutions which are optimal, efficient and extensible.  No differences in the assessment between attending and non-attending students.</p>
<p><b>Required readings</b></p>	<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 Excel, databases and Access, available on <a href="http://www.paolocoletti.it/27000">www.paolocoletti.it/27000</a></li> <li>• Databases course book, available on <a href="http://www.paolocoletti.it/27000">www.paolocoletti.it/27000</a></li> </ul>
<p><b>Supplementary readings</b></p>	<ul style="list-style-type: none"> <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>