Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Syllabus
Course description

Course title	Information Systems and Data Management
Course code	27000
Scientific sector	ING-INF/05
Degree	Bachelor in Economics and Social Sciences
Semester and academic year	1st semester 2020-2021
Year	2
Credits	3
Modular	No

Total lecturing hours	30
Total lab hours	0
Total exercise hours	18
Attendance	suggested, but not required; for non-attending students additional study material which covers the entire course is available on the course's website
Prerequisites	English understanding and reading at level B2. Basic computer usage, in particular Microsoft Windows and file handling.
Course page	www.paolocoletti.it/27000 https://www.unibz.it/it/faculties/economics-management/bachelor-economics-social-sciences/

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 https://www.unibz.it/en/faculties/economics-management/academic-staff/person/6359-paolo-coletti
Scientific sector of the lecturer	ING-INF/05
Teaching language	English
Office hours	9 hours Cockpit – students' zone – individual timetable Webpage: https://www.unibz.it/en/timetable/?sourceId=unibz&department=26&degree=13141%2C13182
Lecturing assistant	none
Teaching assistant	Alessio Brutti

Office hours	--
List of topics covered	File handling, basic computer usage, Windows, computer networks and security requirements. Bitcoin and blockchain. Microsoft Excel, basic graphs, formulas, functions. Microsoft Access, queries.
Teaching format	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.

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 • Basic knowledge of database interaction through queries • Basic knowledge of blockchain emerging technology Applying knowledge and understanding: • Basic usage of Windows file and cryptographic systems • Advanced ability to analyse and organize economic datasets through spreadsheets • Ability in data extraction from a database management program • Potential social benefits and threats of cryptocurrencies and blockchain technology 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 though usage of online help

Assessment	1. Written test to assess knowledge on cryptocurrencies and Blockchain technology, basic computer usage, computer networks and security requirements. Mid-term as alternative. 2. Practical assessment to test data organization, handling and modification through Excel. Mid-term as alternative. 3. 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 (30%), assessment 2 (60%), assessment 3 (10%). 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.

Required readings	• Basic Computer course book, available on www.paolocoletti.it/27000 • Videos on blockchain, Excel, databases and Access, available on www.paolocoletti.it/27000 • Databases course book, available on www.paolocoletti.it/27000
Supplementary readings	• 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 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