General information	
Academic subject	***iNFORMATICS***
Degree course	*Economia e Amministrazione delle Aziende*
Academic Year	*II*
European Credit Transfer and Accumulation System (ECTS)	7
Language	*italian*
Academic calendar (starting and ending date)	*II semester*
Attendance	

Professor/ Lecturer	
Name and Surname	Antonella Serra
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Telephone	
Department and address	*Ionian department*
Virtual headquarters	*Teams*
Tutoring (time and day)	After class, in person Online, by appointment via e-mail

Syllabus	
Learning Objectives	*Knowledge and understanding* *Knowledge of the fundamental concepts for an adequate use of ICT technologies in the company.*
Course prerequisites	
Contents	*Structure of the electronic computer.* *The concepts of analogue and digital magnitude.* *Hardware and Software.* *General scheme of a data processing system.* *The processor. The coprocessors.* *The memories of the computer. The central memory. The cache memory. The buffer memory. Mass memories. ROM memory. The BIOS.* *The Input / Output units.* *The numbering systems.* *Positional numbering systems. The binary numbering system. Character encoding.* *The software.* *The concept of algorithm. Constants, variables and instructions of an algorithm.* *The programming languages. Machine language. Low-level symbolic languages. High-level languages.* *Program translation processes: compilation and interpretation.* *Software use licenses: licenses for free and open source software; licenses for proprietary or closed source software.* *The operating system.* *Characteristics of operating systems. The Onion Skin model. Monotasking and multitasking operating systems.* *Data management.* *Structured data and unstructured data. The management of structured data.* *DBMS and database. Design of a relational database: conceptual design and logical design.* *The SQL language.* *Data import and export: CSV files.*

	Internetworking and Cloud Computing *The parallel architectures. Basic concepts on networks: nodes, protocols and services.* *Computer Networks. Types of Networks: PAN, LAN, MAN and WAN. Circuit and packet switched networks. Client-server and peer-to-peer architectures.* *Internetwork. Internet. The Web. From hosting to housing. Cloud computing.* *Data Quality* *Information systems* *Resources: Data, information, knowledge, processes, software, knowledge workers.* *Information systems classification: TPS, MIS, DSS, ESS. OLAP and OLTP.* *IT security* *Disaster Recovery. Business Continuity.*
Books and bibliography	*Lecture notes available on the e-learning platform*
Additional materials	

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
175	*56*		*119*
ECTS 7			

Teaching strategy	*Frontal lessons*
Expected learning outcomes	
Knowledge and understanding on:	○ Know the fundamental concepts for a wise use of ICT technologies in the company.
Applying knowledge and understanding on:	○ Autonomy in decisions about the right software / service to be used in the company
Soft skills	• *Autonomy of judgment* • *Show that you have acquired autonomy of judgment on the choices in relation to the design of a Company Information System.* • *Communication skills* • *Show to be able to communicate in an appropriate way the technical characteristics of a Company Information System.* • *Ability to learn independently* • *Show that you have developed the ability to independently learn further insights on topics relating to ICT resources that can be used in Company Information Systems.*

Assessment and feedback	
Methods of assessment	*Oral / written exam*
Evaluation criteria	• Knowledge and understanding: • Show that you have developed the ability to independently learn further insights on topics relating to ICT resources that can be used in Company Information Systems.

	• Applied knowledge and understanding: • Show that they have developed the ability to independently apply the concepts relating to ICT resources that can be used in Company Information Systems. • Autonomy of judgment: • Show that you have developed evaluation skills in real contexts • Communication skills: • Show that you have developed the ability to communicate what you have learned in a clear and rigorous way. • Ability to learn: • Show that you have acquired a learning methodology
Criteria for assessment and attribution of the final mark	*The results obtained, of all the expected learning criteria, will be evaluated through appropriate questions included in the exams.*
Additional information	