Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Bachelor in Communication sciences and culture

Course title:	Elements of Computer Science for Communications
Course year:	2017-2018
Semester:	2
Course code:	17239
Scientific sector:	INF/01
Lecturer:	Del Fatto Vincenzo
	Vincenzo.DelFatto@unibz.it
Module:	NO
Lecturer other module:	/
Credits:	6
Total lecturing hours:	45 (30 lecture + 15 laboratory)
Total Hours of availability for students and tutoring:	
Office hours:	18
Attendance:	according to the regulation. Non attending student shall find the opportunity to participate in educational activities on the course e-learning platform
Teaching language:	English
Propaedeutic course:	none
Course description:	
Specific educational objectives:	The course has the objective of introducing participants to computer science and to its aspects that are fundamental today for any communication task, in a global and multi-disciplinary perspective. The main objectives are therefore the acquisition of basic computer skills that today are indispensable for any knowledge worker. A specific focus, both in frontal and laboratory lectures will be given to those skills that are useful for communications sciences.
List of topics covered:	1) Motivation: what is the role of Computer Science for Communication 2) Computers as tools for managing information a) Computer structure b) Computer peripherals – how to interface with a computer c) Operating systems –How does a computer work d) Computer networks – How do computers communicate e) the Internet 3) Information management a) How is data represented: numbers, text, audio, images, videos b) How do computers solve problems-Algorithms c) How is information organized – Archives, data on the Web, XML d) How is information communicated – Social media e) Security and privacy 4) Technologies for communicating, collaborating and learning a) advanced use of office automation suites

	b) collaborative environments and tools c) online learning
Teaching format:	Frontal lectures and laboratory exercises. Due to the importance of practical experience with technology, students are requested to always bring a laptop, which may be borrowed by the ICT services before the lecture, if they have no personal laptop. Tablets or smartphones cannot substitute the laptop.
Learning outcomes:	Knowledge and understanding: • understanding of the main concepts related to ICT that form the set of skills and knowledge that are crucial today for everybody, and that could be useful in any communication task, both from a theoretical and practical point of view • knowledge about main tools and techniques available from computer science to improve communication skills • understanding what kind of tools could be useful in which situation, and how to use them fruitfully Applying knowledge and understanding: • Acquire a practical experience on using ICT in any context where they can be applied for improving communication • Acquire a practical experience on using software for computer-mediated communication Making judgments • Critical thinking and making judgment about present, current and future use of ICT within communication tasks Learning capabilities Students will develop their skills in a variety of areas during the course and will have engaged with the following: • Independent learning and working • Working with others • Communication • Personal reflection Communication capabilities: • Capabilities of using computers and networks to communicate with different communication media, in synchronous and asynchronous ways • Capability of using new media and some visual tools in various area of modern communication, specifically those involving ICT
Assessment:	30% - written exam on theoretical parts 70% - lab parts Optionally, students can submit project work during the semester, which (if sufficient) shall reduce to about a half the part of the syllabus to be assessed at the exam. Such project work can be submitted via the ole.unibz.it platform, both by attending students and by non-attending students.
Evaluation criteria and criteria for awarding marks:	• in relation to the written test, correctness of answers and relevance of argument with respect to the contents will be evaluated, together with the ability to synthesis; • in relation to laboratory test, the proper and efficient use of computer tools addressed during the lab hours will be evaluated
Required readings:	• study material and bibliography provided by the teacher, by means of the ole.unibz.it portal. Open access material shall be privileged.
Supplementary readings:	