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:	1
Semester:	2
Course code:	17239
Scientific sector:	INF/01
Lecturer:	Maria Menendez-Blanco
	maria.menendezblanco@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:	Attendance is strongly recommended. Non-attending students can participate in educational activities on the course e-learning platform.
Teaching language:	English
Propaedeutic course:	none
Course description:	
Specific educational objectives:	This course is designed to give students an overview of Computer Science research and development with a unique focus on the interaction between digital technologies and users. The aim is twofold. Firstly, the course examines the implications of using social computing technologies to support communication and collaboration between members of a team, a group of friends, or a distributed community. Secondly, it focuses on the user interface conceived as the space for communication between humans and software algorithms. Starting from a short introduction to Computer Science, as an academic discipline and a practice, the course will focus on the fields which have directly addressed the human factor, namely Human-Computer Interaction, and Social Computing. The course will focus on an interaction design perspective of computing by providing students with theoretical and practical knowledge of computer-mediated communication and interaction design qualities.
List of topics covered:	The course will focus on two main thematic areas, namely Human-Computer Interaction and Social Computing; each area will be covered in more than one lecture/laboratory. Each lecture will present theories and methods that are crucial to acquire foundational knowledge and skills for understanding and developing effective computer-mediated communication artefacts and platforms.

	• Human-Computer Interaction: methods and processes for user-centered research, key quality metrics in interaction design (i.e., usability, user experience, accessibility), prototyping tools and techniques, and methods for user-centric evaluation • Social Computing: theory on individual and social aspects influencing online interactions, designing online social interactions, foundational concepts of computer-supported collaborative work
Teaching format:	Frontal lectures and laboratory exercises. Due to the importance of practical experience, 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: • Describe the main fields of computer science which have addressed human factors and be aware of their epistemological positions • Explain key concepts of interaction design applied to computing • Specify quality metrics of human-computer interaction • Demonstrate awareness of critical design Applying knowledge and understanding: • Critical evaluation of digital platforms including usability, user experience, and engagement • Practical experience on using digital platforms for public engagement 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 • Group working • Analytical thinking • Personal reflection Communication capabilities: • Demonstrate the capability of using groupware in synchronous and asynchronous communication • Improve verbal and written presentation skills
Evaluation criteria and criteria for awarding marks:	The exam will consist of two parts which will be assessed independently: a written report and an oral examination. Written report: Students who regularly attend the course (> 60% attendance) will be engaged in a group work, and specific exercises will be introduced in the class. Students who do not attend the lessons will be given a similar exercise to be done individually. Non-attending students are requested to contact the lecturer no later than one month after the starting date of the course. Attending (and non-attending) students need to deliver the group (or individual) report at least two weeks before the exam session the student wish to attend. Oral exam: Students will do a group (or individual, if they have worked individually) presentation of their written report, followed up by individual questions to assess the theoretical knowledge and skills acquired during the course.

	Criteria for the evaluation of the written report: Creativity and relevance of the selected topic, methodological rigor, relevance of the results, development of critical reflections, mastery of language (with respect to the terms, theories, and methods introduced during the course) and general quality of the report (e.g., presentation, structure, use of language) Criterial for the evaluation of the oral exam: clarity of answers, skills in critical thinking, mastery of language (with respect to the terms, theories, and methods introduced during the course), ability to summarize, evaluate, and establish relationships between topics Final assessment: The final grade is the average of the written report mark (50%) and the mark of the oral exam (50%). Both parts (the oral exam and the written assignment) must be sufficient to pass the exam.
Required readings:	• Required reading will be allocated on a weekly basis
Supplementary readings:	