Syllabus

Course Description

Course Title	Advances in SE and Communication
Course Code	76108
Course Title Additional	
Scientific-Disciplinary Sector	INFO-01/A
Language	English
Degree Course	Master in Software Engineering
Other Degree Courses (Loaned)	
Lecturers	Prof. Ilenia Fronza, Ilenia.Fronza@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/17458
Teaching Assistant	
Semester	Second semester
Course Year/s	1
CP	6
Teaching Hours	60
Lab Hours	0
Individual Study Hours	90
Planned Office Hours	18
Contents Summary	• Sustainability in Software Engineering • AI and Software Engineering • Remote/Hybrid Software Engineering • Computing Education and Training • Communication challenges and strategies • Creating video seminars: guidelines
Course Topics	The course provides students with a seminar-based overview of advanced topics in Software Engineering research. It addresses challenges and strategies related to the communication of research findings.

Keywords	Seminars, Diversity, Sustainability, Artificial Intelligence, Computing Education.
Recommended Prerequisites	
Propaedeutic Courses	
Teaching Format	Frontal lectures, hands-on activities, presentations, and discussion.
Mandatory Attendance	Not compulsory, but strongly recommended.
Specific Educational Objectives and Learning Outcomes	Knowledge and understanding D1.3 have an in-depth knowledge of the scientific method of investigation applied to even complex systems and innovative technologies that support Software Engineering and its various fields of applications. D1.8 ability to read, understand, and elaborate on specialist scientific documentation, such as conference proceedings, articles in scientific journals, technical manuals. Making judgements D3.5 ability to work with broad autonomy, taking responsibility for projects and structures. D3.6 ability to identify the various roles of software engineering in society and its social and environmental impact on society. Communication skills D4.1 ability to present the contents of a scientific/technical report in a set time in front of diverse audiences, including non-specialists. Learning skills D5.1 ability to independently extend the knowledge acquired during the course of study by reading and understanding scientific and technical documentation in English;
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Attending students Coursework [30% of mark] + Video seminar [40% of mark] + Final exam (oral) [30% of mark] Coursework. During the course, students will actively participate by reading papers, critically analysing, presenting, and discussing their

	content. ILOs assessed: D1.8, D3.5, D3.6, and D4.1. Video seminar. Students will be assigned randomly to one of the course topics and prepare a 15-minute video seminar. In case of a positive mark, the mark will count for the remaining regular exam sessions of the academic year. A new video seminar needs to be submitted for the next exam session in case of a negative mark. ILOs assessed: D1.8, D3.5, D3.6, and D5.1. Final exam (oral). Verification questions about the topics of the course. ILOs assessed: D1.3, D1.8, D3.6, and D5.1. To be classified as an "attending student," students must complete their coursework and attend at least 75% of the activities for video seminar preparation. Non-attending students Final exam (oral) [100% of mark]. Verification questions about the topics of the course. ILOs assessed: all.
Evaluation Criteria	Attending students To enroll in the oral exam, a student must: • Deliver the video seminar (the video seminar must be evaluated BEFORE the final exam, otherwise the exam cannot be registered). • Earn a sufficient evaluation of both the coursework and the video seminar. Relevant for assessment: • Coursework: ability to read and understand specialist scientific documentation; ability to prepare and deliver presentations (in English) with scientific/technical content; ability to summarize in own words, evaluate, and establish relationships between topics; skills in critical thinking; methodological rigor. • Video seminar: quality of the video seminar (according to the guidelines provided during the course); ability to independently select documentation from various sources; ability to independently extend the knowledge acquired during the course; ability to summarize in own words, evaluate, and establish relationships between topics; skills in critical thinking; methodological rigor. • Final exam (oral): correctness of answers; clarity of answers; ability to summarize in own words, evaluate, and establish relationships between topics; skills in critical thinking. Non-attending students Relevant for assessment:

	• Final exam (oral): Accuracy of answers; clarity of explanations; ability to summarize concepts in one's own words, evaluate, and establish connections between topics; skills in critical thinking.
Required Readings	• Alley, Michael (2013): The craft of scientific presentations. Critical steps to succeed and critical errors to avoid. Second Edition. New York, NY: Springer • All the readings provided during the course
Supplementary Readings	
Further Information	
Sustainable Development Goals (SDGs)	Quality education, Climate action, Sustainable cities and communities, Gender equality