

# Syllabus

## *Kursbeschreibung*

<b>Titel der Lehrveranstaltung</b>	Advances in SE and Communication
<b>Code der Lehrveranstaltung</b>	76108
<b>Zusätzlicher Titel der Lehrveranstaltung</b>	
<b>Wissenschaftlich-disziplinärer Bereich</b>	INFO-01/A
<b>Sprache</b>	Englisch
<b>Studiengang</b>	Master in Software Engineering
<b>Andere Studiengänge (gem. Lehrveranstaltung)</b>	
<b>Dozenten/Dozentinnen</b>	Prof. Ilenia Fronza, Ilenia.Fronza@unibz.it <a href="https://www.unibz.it/en/faculties/engineering/academic-staff/person/17458">https://www.unibz.it/en/faculties/engineering/academic-staff/person/17458</a>
<b>Wissensch. Mitarbeiter/Mitarbeiterin</b>	
<b>Semester</b>	Zweites Semester
<b>Studienjahr/e</b>	1
<b>KP</b>	6
<b>Vorlesungsstunden</b>	60
<b>Laboratoriumsstunden</b>	0
<b>Stunden für individuelles Studium</b>	90
<b>Vorgesehene Sprechzeiten</b>	18
<b>Inhaltsangabe</b>	<ul style="list-style-type: none"><li>• Sustainability in Software Engineering</li><li>• AI and Software Engineering</li><li>• Remote/Hybrid Software Engineering</li><li>• Computing Education and Training</li><li>• Communication challenges and strategies</li><li>• Creating video seminars: guidelines</li></ul>

<b>Themen der Lehrveranstaltung</b>	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.
<b>Stichwörter</b>	Seminars, Diversity, Sustainability, Artificial Intelligence, Computing Education.
<b>Empfohlene Voraussetzungen</b>	
<b>Propädeutische Lehrveranstaltungen</b>	
<b>Unterrichtsform</b>	Frontal lectures, hands-on activities, presentations, and discussion.
<b>Anwesenheitspflicht</b>	Not compulsory, but strongly recommended.
<b>Spezifische Bildungsziele und erwartete Lernergebnisse</b>	<p>Knowledge and understanding</p> <p>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.</p> <p>D1.8 ability to read, understand, and elaborate on specialist scientific documentation, such as conference proceedings, articles in scientific journals, technical manuals.</p> <p>Making judgements</p> <p>D3.5 ability to work with broad autonomy, taking responsibility for projects and structures.</p> <p>D3.6 ability to identify the various roles of software engineering in society and its social and environmental impact on society.</p> <p>Communication skills</p> <p>D4.1 ability to present the contents of a scientific/technical report in a set time in front of diverse audiences, including non-specialists.</p> <p>Learning skills</p> <p>D5.1 ability to independently extend the knowledge acquired during the course of study by reading and understanding scientific and technical documentation in English;</p>
<b>Spezifisches Bildungsziel und erwartete</b>	

<b>Lernergebnisse (zusätzliche Informationen)</b>	
<b>Art der Prüfung</b>	<p>Attending students</p> <p>Coursework [30% of mark] + Video seminar [40% of mark] + Final exam (oral) [30% of mark]</p> <p>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.</p> <p>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.</p> <p>ILOs assessed: D1.8, D3.5, D3.6, and D5.1.</p> <p>Final exam (oral). Verification questions about the topics of the course. ILOs assessed: D1.3, D1.8, D3.6, and D5.1.</p> <p>To be classified as an "attending student," students must complete their coursework and attend at least 75% of the activities for video seminar preparation.</p> <p>Non-attending students</p> <p>Final exam (oral) [100% of mark]. Verification questions about the topics of the course. ILOs assessed: all.</p>
<b>Bewertungskriterien</b>	<p>Attending students</p> <p>To enroll in the oral exam, a student must:</p> <ul style="list-style-type: none"> <li>• Deliver the video seminar (the video seminar must be evaluated BEFORE the final exam, otherwise the exam cannot be registered).</li> <li>• Earn a sufficient evaluation of both the coursework and the video seminar.</li> </ul> <p>Relevant for assessment:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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;</li> </ul>

	<p>ability to summarize in own words, evaluate, and establish relationships between topics; skills in critical thinking; methodological rigor.</p> <ul style="list-style-type: none"><li>• 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.</li></ul> <p>Non-attending students</p> <p>Relevant for assessment:</p> <ul style="list-style-type: none"><li>• 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.</li></ul>
<b>Pflichtliteratur</b>	<ul style="list-style-type: none"><li>• Alley, Michael (2013): The craft of scientific presentations. Critical steps to succeed and critical errors to avoid. Second Edition. New York, NY: Springer</li><li>• All the readings provided during the course</li></ul>
<b>Weiterführende Literatur</b>	
<b>Weitere Informationen</b>	
<b>Ziele für nachhaltige Entwicklung (SDGs)</b>	Hochwertige Bildung, Maßnahmen zum Klimaschutz, Nachhaltige Städte und Gemeinden, Geschlechter-Gleichheit