Syllabus

Course Description

Course Title	AI-assisted Literature Review
Course Code	71080
Course Title Additional	
Scientific-Disciplinary Sector	IINF-05/A
Language	English
Degree Course	PhD Programme in Computer Science
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	First semester
Course Year/s	2025 - 2026
CP	1
Teaching Hours	10
Lab Hours	0
Individual Study Hours	15
Planned Office Hours	
Contents Summary	Manually preparing and writing a literature review takes considerable time and effort. However, tools now exist to review large knowledge bases and deliver meaningful insights in a matter of minutes. Throughout this course, students will explore which stages of the literature review process can be automated using AI and to what extent human involvement remains necessary. Students will have the opportunity to engage in a hands-on assignment where they will apply their knowledge to develop the literature review required for their doctoral program. This assignment aims to deepen their understanding and enhance their research skills.

	• Literature Review: stages and guidelines • Automating literature reviews using AI
Course Topics	• Literature Review: stages and guidelines • Automating literature reviews using AI
Keywords	Artificial Intelligence, Literature review
Recommended Prerequisites	
Propaedeutic Courses	
Teaching Format	The course consists of 3 modules, combining frontal lectures, hands-on activity, and group discussions. The first introductive module lasts 2 hours and focuses on theoretical foundations. The second module lasts 4 hours and is dedicated to hands-on activities to experiment with automating literature reviews using AI. In the final module, also 4 hours long, students will present their findings and engage in a discussion about the advantages and disadvantages of using AI for literature reviews.
Mandatory Attendance	Not compulsory but recommended. Non-attending students must contact the lecturer at the start of the course to agree on the modalities of the independent study.
Specific Educational Objectives and Learning Outcomes	...
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Students will have the opportunity to engage in a hands-on assignment where they will apply their knowledge to develop the literature review required for their doctoral program. The assignment will be evaluated and discussed during the course. Non-attending students will work on the assignment autonomously and present it in the final module.
Evaluation Criteria	The exam is graded on a pass/fail basis with no marks awarded. The following criteria are relevant for the assessment: - Communication clarity and effectiveness. - Ability to summarize, evaluate, and establish relationships between topics. - Ability to apply the tools, methods, and processes introduced in the course to specific cases.

Required Readings	The reading material is specified during the course.
Supplementary Readings	
Further Information	
Sustainable Development Goals (SDGs)	Quality education