Syllabus

Course Description

Course Title	Text Mining and Analysis
Course Code	28852
Course Title Additional	
Scientific-Disciplinary Sector	NN
Language	English
Degree Course	PhD Programme in Management
Other Degree Courses (Loaned)	
Lecturers	
Teaching Assistant	
Semester	Second semester
Course Year/s	1
CP	1
Teaching Hours	6, Prof. Loris Gaio, unitn
Lab Hours	0
Individual Study Hours	-
Planned Office Hours	
Contents Summary	The course is designed for PhD students who want to learn the fundamentals of applied methods of text mining and analysis, with a straight focus on application. The course covers some broad theoretical traits of computational linguistics and focuses mainly on practical analysis processes of text mining and analysis, including some of the most frequent methods employed in this domain. Topics covered include text collection, basic techniques of text transformation and processing, syntactic and semantic analysis methods, text visualization, supervised and unsupervised classification methods.
Course Topics	During the course, some tools and software addressed to text analysis will be cited, although most applications will be developed using the Orange3 platform. At the end of the course, students will

	be able to conduct their own text analysis using a quite simple application environment. The course is suitable for PhD students enrolled in humanistic and social PhD programs who are interested in exploring theoretic fundamentals and application principles of text analysis and mining.
Keywords	
Recommended Prerequisites	Fundamentals of probability theory; basic elements of computer programming; installation of Orange3 platform is required before the course starts (free software available at https://orangedatamining.com/download/).
Propaedeutic Courses	
Teaching Format	Frontal lectures, in-class discussion, exercises.
Mandatory Attendance	Required
Specific Educational Objectives and Learning Outcomes	By the end of this course, students will be able to: • Identify the relevant concepts and principles of text mining and analysis and their applications in research activities. • Select appropriate methods and strategies to apply text analysis to research projects requiring such kind of perspective. • Use tools and applications, such as Orange3, to collect, visualize, process, and analyze English texts
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Project work: sketch a brief proposal (max one page) for the application of text analysis on a research topic of interest; perform the analysis through an Orange3 workflow; comment results and most relevant evidence stemming from the analysis. A brief report and the Orange3 workflow must be delivered. NOTE: project works are valid for 1 academic year and cannot be carried over beyond that time-frame.
Evaluation Criteria	Pass or no pass
Required Readings	Readings will be provided during the course.
Supplementary Readings	Readings will be provided during the course.
Further Information	
Sustainable Development	

Goals (SDGs)	