

## AI 819 Text Analytics (3. 0)

**Pre-requisite:** None

**Recommended Books:**

Mining Text Data, by Charu C. Aggarwal and ChengXiang Zhai, Springer, 2012.  
Foundations of statistical natural language processing, by Manning, Christopher D., and Hinrich Schütze. MIT press, 1999.  
Speech & Language Processing, by Dan Jurafsky and James H Martin, Pearson Education India, 2000.

Introduction to Information Retrieval (2007), by Christopher D. Manning, Prabhakar Raghavan, and Hinrich Schuetze, Cambridge University Press, 2007.  
Applied Text Analysis with Python (2018), by Benjamin Bengfort, Tony Ojeda and Rebecca Bilbro, O'Reilly Media.

**Credit Hours:** 3 (3, 0)

**Course Objectives:**

On completion of the course, the student should be able to:

- have a basic and hands-on understanding of the currently used frameworks and methods for text analytics and natural language understanding, in particular the application of machine learning methods to text analytics.

<b>Topics / Contents</b>	<b>Allocated Periods</b>
Given the dominance of text information over the Internet, mining high-quality information from text becomes increasingly critical. The actionable knowledge extracted from text data facilitates our life in a	<b>45</b>
broad spectrum of areas, including business intelligence, information acquisition, social behavior analysis and decision making. In this course, we will cover important topics in text mining including: basic natural language processing techniques, document representation, text categorization and clustering, document summarization, sentiment analysis, social network and social media analysis, probabilistic topic models and text visualization.	