

Subject code	Credits
INF5017	6

Course title in Lithuanian

INFORMACIJOS PAIEŠKA

Course title in English

INFORMATION RETRIEVAL

Short course annotation in Lithuanian (up to 500 characters)

Kurse aptariama informacijos modeliavimo ir paieškos teorija ir taikymai. Pristatomos klasikinės ir modernios informacijos modeliavimo teorijos, bei jų taikymas paieškai. Pradedama nuo bazinių žinių, ir baigiama naujausiais iššūkiais.

Short course annotation in English (up to 500 characters)

The course aims to study the theories and techniques used in modelling of information and text based retrieval. It discusses classical and modern techniques of knowledge modelling and their application for information retrieval. Students start from the basic notions and concepts, and finish with the newest challenges in the field.

Prerequisites for entering the course

Basic knowledge of statistics, set theory, logics, algebra and software development, information retrieval.

Course aim

Learn to build IR system

Content

No	Content (topics)
1.	Introduction to Advanced Information Retrieval
2.	Advanced NLP in IR.
3.	Indexing of big amounts of data, distributed processing.
4.	Extensions of boolean and vector IR model.
5.	Probabilistic IR model and its extensions.
6.	Latent semantic and other advanced IR models.
7.	Advanced evaluation, behavioural analysis.
8.	Advanced search in WWW: tools for scanning, processing; HITS, PageRank.
9.	Clustering of results: flat clustering, hierarchical clustering, clustering of big amounts of data, feature construction and selection.
10.	Classification in IR: Naïve Bayes, Vector Space, SVM
11.	Focused search.

Distribution of workload for students (contact and independent work hours)

Lectures	45 hours
Group work	5
Laboratory work	10
Individual students work	100
Total:	160

Structure of cumulative score and value of its constituent parts

Final written exam (50%), mid-term written exam (17%), and assessments of laboratory (practical) work (33%).

Recommended reference materials

No	Publication year	Authors of publication and title	Publishing house	Number of copies in		
				University library	Self-study rooms	Other libraries
<i>Basic materials</i>						
1.	2008	C. D. Manning, P. Raghavan, H. Schütze. Introduction to Information Retrieval.	Cambridge University Press			On-line book: http://www-csli.stanford.edu/~hinrich/information-retrieval-book.html .
2.	1979	C. J. Van Rijsberge. Information Retrieval.	Butterworths			http://www.dcs.gla.ac.uk/Keith/Preface.html

3	2015	W. Bruce Croft Donald Metzler Trevor Strohman. Search Engines Information Retrieval in Practice	Pearson			http://ciir.cs.umass.edu/downloads/SEIRiP.pdf
<i>Supplementary materials</i>						
		<i>Mi Islita</i>				http://www.miislita.com/
		<i>www.google.com</i>				www.google.com

Course programme designed by

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