

# Knowledge management

**Lecturer:** Evgeniy Nikolaevich Pavlovskiy, C.Sc.

**Semester:** 1    **Duration:** 16 weeks

**Workload (h):** 108    **Presence (h + CH):** 32 (4)    **Self-Study (h):** 72

**Contents:**

**Background and relations to other courses:** The students are supposed to be familiar with the basic concepts from mathematical logics

**Main topics and learning objectives:**

Themes	Learning objectives
Knowledge engineering overview	To overview knowledge engineer responsibility. To survey knowledge lifecycle. To understand knowledge engineering technologies.
Concept mapping	To know basics concept mapping, mind mapping. To use tools for creating mind-maps. To be able to make fast lecture notes.
Domain ontology	To know domain ontology definition. To overview the main techniques in ontology engineering. To know Resource Definition Framework (RDF). To be able to write correct SPARQL queries.
Knowledge management	To know tasks of knowledge management. To be able of use wiki.
Case studies	To solve practical problems related to extraction knowledge from experts, presenting it in appropriate way, making lecture notes.

**Lecture plan:**

1. Knowledge engineering overview. Knowledge domain.
2. Mind-maps, basic principles, tools (Tony Busan methodic).
3. Domain ontology, OWL.
4. "Extracting" knowledge from an expert
5. Fast logging
6. Models for knowledge presenting
7. Knowledge management in organization. Wikies.
8. Concept visualization.
9. Case studies

**Assessment:**

**Formative:** in interaction with lecturer and tutor during learning period. On site, skype, email are preferable.

**Summative:**

Number and Type; Connection to Course	Duration	Part of final mark in %
Written Exam	90 min	60%
Case Study Presentation	1	40%

**Learning outcomes:**

**Academic:** The students have manage knowledge of organization.

**Soft skills:** The students are able to present knowledge models of a given organization

**Prerequisites for Credit Points:** The credit points will be granted when the course has been successfully completed, i.e. all parts of the examination are passed.