

**Course title: KNOWLEDGE MANAGEMENT**

<b>Lecturers</b>	Full Prof. Mirko Maleković, Ph.D., Full. Prof. Sandra Lovrenčić, Ph.D., Bogdan Okreša Đurić, M.Inf., Vlatka Sekovanić, mag.educ.inf.
<b>Language of instruction:</b>	Croatian and English
<b>Schedule:</b>	60 teaching hours - 4 hours per week (2 hours lectures + 2 hours laboratory exercises + 2 hours seminars)
<b>Study level</b>	Bachelor
<b>Study programme</b>	Information / Business Systems
<b>Semester</b>	Summer
<b>ECTS</b>	4
<b>Goal</b>	<p>The goal of this course is to enable the students to understand theory, practice, tools and techniques of knowledge management (KM). In the scope of the course students will learn and be able to apply methods of analysis and evaluation of KM solutions as well as learn and apply methods of semantic modelling and knowledge reasoning in KM. Also, students will understand the role of KM in organizations, which can assist them in development of a successful career. After the completion of the course, the students should be able to:</p> <ul style="list-style-type: none"><li>• Clearly characterize types of knowledge and structure of knowledge management solutions</li><li>• Describe key components of KM solutions: infrastructure, mechanisms and technologies, systems and processes</li><li>• Analyse and evaluate: organizational impacts of KM, factors influencing KM</li><li>• Evaluate KM solution of an organization</li><li>• Demonstrate understanding of importance of intellectual capital in gaining a competitive advantage of organization</li><li>• Understand and apply concepts and tools of semantic modelling, knowledge reasoning and lateral reasoning in realization of KM solutions</li><li>• Apply appropriate tool for information and knowledge visualization, representation and structuring</li></ul>

	<ul style="list-style-type: none"> <li>• Work in team and present results of the assignment raditi u timu, uključujući i distribuirani timski rad korištenjem kolaborativnog alata, i prezentirati rezultate</li> </ul>
<b>Content</b>	<ol style="list-style-type: none"> <li>1. <b>Introduction to knowledge management</b> Introduction to course. Knowledge – opinions and definitions, sources, influence, intuition. Knowledge and action. Knowledge management (KM) – definition, motivation, importance, knowledge management systems, effective KM. Knowledge age. Lateral reasoning. Six thinking hats.</li> <li>2. <b>Nature of knowledge</b> Data, information, knowledge. Alternative views on knowledge. Types of knowledge and examples. Knowledge and expertise. Knowledge and information demand. Knowledge locations – people, artefacts, organizational entities. Characteristics of knowledge. Knowledge and innovation.</li> <li>3. <b>Problems</b> Worlds of Karl Popper. Propositional logic – propositions, problem description, reasoning. Semantic rules (tables). Problem examples – formal description, solution explanation. Fuzzy logic and problem description.</li> <li>4. <b>Knowledge management solutions</b> Architecture of KM solutions. KM processes – knowledge discovery, capture, sharing and application. KM mechanisms and technologies – support for processes. KM systems. Examples. KM infrastructure. KM model. Intellectual capital. KM implementation and barriers. KM myths.</li> <li>5. <b>Organizational impacts of KM</b> Impact on people – learning, adaptability, job satisfaction. Impact on processes – effectiveness, efficiency, innovation. Impact on products – value-added products, knowledge-based products. Impact on organizational performance – direct, indirect, economy of scale and scope, competitive advantage.</li> <li>6. <b>Factors influencing KM</b> Universalistic and contingency view on KM. Contingency factors – task, knowledge, organizational and environmental characteristics. Identification of appropriate KM solutions. Example.</li> <li>7. <b>Assessment of KM in organization</b> When is assessment needed. Qualitative and quantitative assessment. Measures for assessment of KM solutions. Assessment of KM solutions impact – on employees,</li> </ol>

	<p>processes, products and organizational performances. Assessment approaches. Elements of KM assesment.</p> <p>8.     <b>Semantic modelling</b></p> <p>Conceptual modelling. Concepts and conceptual nets. Specification languages. Objects. Associations – classification, generalization/specialization, aggregation. Metamodelling.</p> <p>9.     <b>Reasoning about knowledge</b></p> <p>When person (agent) knows something. What person (agent) considers possible. Kripke structure. Reasoning examples. Metareasoning.</p>
<b>Exercises</b>	In the course of the exercises students use program tools to work on visualisation, representation and structuring of information and knowledge of a certain topic and present their work.
<b>Preconditions</b>	Organization
<b>Realization and examination</b>	<p>Classes: Lectures, seminars, exercises</p> <p>Exam: Written exam, seminar paper, exercises, activity</p>
<b>Related courses</b>	<ol style="list-style-type: none"> <li>1. Knowledge Management, Uppsala University, <a href="http://www.uu.se/en/admissions/master/selma/kursplan/?kKod=2AD338&amp;lasar">http://www.uu.se/en/admissions/master/selma/kursplan/?kKod=2AD338&amp;lasar</a></li> <li>2. Knowledge Management, School of Information Sciences, College of Communication &amp; Information, University of Tennessee, <a href="https://www.sis.utk.edu/sites/default/files/syllabus/INSC541syl.pdf">https://www.sis.utk.edu/sites/default/files/syllabus/INSC541syl.pdf</a></li> <li>3. Knowledge Management, National Programme on Technology Enhanced Learning, India, <a href="https://onlinecourses.nptel.ac.in/noc17_mg07/preview">https://onlinecourses.nptel.ac.in/noc17_mg07/preview</a></li> <li>4. Knowledge Management, University of Wellington / School of Information Management, <a href="https://www.victoria.ac.nz/vbs/studenthelp/course-outlines/2016/trimester-1/mmim/2016_1_mmim503.pdf">https://www.victoria.ac.nz/vbs/studenthelp/course-outlines/2016/trimester-1/mmim/2016_1_mmim503.pdf</a></li> <li>5. Knowledge Management, University of Adelaide, <a href="https://www.adelaide.edu.au/course-outlines/102372/1/tri-1/">https://www.adelaide.edu.au/course-outlines/102372/1/tri-1/</a></li> </ol>
<b>Literature</b>	<p><b>Basic:</b></p> <ol style="list-style-type: none"> <li>1. Becerra-Fernandez, I.; Sabherwal, R.: Knowledge Management: Systems and Processes. M.E. Sharpe Inc., 2010.</li> </ol>

2. Becerra-Fernandez, I.; Gonzales, A.; Sabherval, R.: Knowledge Management: Challenges, Solutions, and Technologies, Prentice Hall, 2004.

**Additional:**

1. Schwartz, D.G., ed.: Encyclopedia of Knowledge Management, Idea Group Inc, 2006.
2. Cross, J.: Informal Learning: Rediscovering the Natural Pathways That Inspire Innovation and Performance, Pfeiffer, 2007.
3. Sheridan, W.P.: How to Think Like a Knowledge Worker: A guide to the mindset needed to perform competent knowledge work, 2008., <http://unpan1.un.org/intradoc/groups/public/documents/unpan/unpan031277.pdf>
4. Dellow, J.: Climbing the Personal Knowledge Mountain, Whitepaper, 2003., <http://thinkingshift.com/web/downloads/ClimbingthePKM0503.PDF>
5. Malhotra, Y.: Knowledge Management and Business Model Innovation, Idea Group Publishing, 2001.
6. Malhotra, Y.: Knowledge Management and Virtual Organization, Idea Group Publishing, 2000.