

## **Tárgytematika / Course Description**

### **Knowledge Base Technologies and Planning**

**GKNM\_INTA059**

**Tárgyfelelős neve /**

**Teacher's name:** dr. Erdős Ferenc

**Félév / Semester:** 2021/22/2

**Beszámolási forma /**

**Assesment:** Vizsga

**Tárgy heti óraszám /**

**Teaching hours(week):** 1/2/1

**Tárgy féléves óraszám /**

**Teaching hours(sem.):** 0/0/0

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#### **OKTATÁS CÉLJA / AIM OF THE COURSE**

The aim of the course is to recognize the importance of knowledge as a strategic organizational resource and to explore ways for managing and engineering it, as well as to understand the foundations of different knowledge base technologies from a business point of view.

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#### **TANTÁRGY TARTALMA / DESCRIPTION**

1. Basic Terms Regarding Knowledge
2. The Concept and Role of Knowledge Management
3. The Role of Networks in the Process of Knowledge Transfer and Acquisition
4. Knowledge Management Approach to Different Types of Knowledge Base Systems
5. Knowledge Engineering and Representation
- 6-7. CRISP-DM Methodology
- 8-9. Knowledge Discovery in Databases, Data Mining
- 10-14. AI/ML-Based Knowledge Discovery

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#### **SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD**

Students will get marks based on the written final exam.

Grades and scale:

0%-50% Fail

50%–65% Pass

65%–80% Satisfactory

80%–90% Good

90%–100% Excellent

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### **KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL**

Cios, K. J., Pedrycz, W., & Swiniarsk, R. M.: Data Mining Methods for Knowledge Discovery, Springer, 2012

Joachim W. Schmidt, Costantino Thanos (Editor): Foundations of Knowledge Base Management, Springer, 1989

Negnevitsky, Artificial Intelligence A Guide to Intelligent Systems, Pearson, 2011.

Bimba, A. T., Idris, N., Al-Hunaiyyan, A., Mahmud, R. B., Abdelaziz, A., Khan, S., & Chang, V.: Towards knowledge modeling and manipulation technologies: A survey. International Journal of Information Management, 36(6), pp. 857–871. 2016.

Lin, J., Zhao, Y., Huang, W. et al. Domain knowledge graph-based research progress of knowledge representation. Neural Comput & Applic 33, pp. 681–690. 2021.