Course title: Ontology-Based Information Models	**Neptun code: GEIAL424-a**
Course coordinator: Dr. László József Kovács, PhD, dr. habil., professor	
type of lesson and number of lessons: **lecture (2)**	
method of evaluation: colloquium	
curriculum location of the subject: (autumn/spring semester): autumn and spring	
pre-study conditions *(if any)*: -	
The task and purpose of the subject:	
The purpose of the course is to present the ontological data models after reviewing the semantic data models. Students will learn how to create and store ontology models in RDF and OWL environments. Students get to know the capabilities and management methods of ontological databases.	
Course description:	
Knowledge engineering tools, overview of semantic data models, concept of computer ontology, levels of ontology models, DL logic, logic engines, elements of RDF and OWL languages; programming of the SPARQL language, Fuseki ontology server, application areas, Ontology API	
Required literature:	
1. Dr. Kovács László: Ontology Management, moodle course (moodle.iit.uni-miskolc.hu) 2. E. Kendall: Ontology Engineering, Springer, 2019 3. P. Massingham: Knowledge Management: Theory in Practice, Sage, 2019	
Recommended literature:	
1. Tobby Segeran: Programming the Semantic Web: Build Flexible Applications with Graph Data, O'Reilly, 2009 2. Keet, CM. An Introduction to Ontology Engineering.2018	