1.	**Course title**	Advanced Databases
2.	**Course code**	F18L3S138
3.	**Semester**	8
4.	**Unit offering the course**	Faculty of Computer Science and Engineering
5.	**ECTS**	6
6.	**Goals of the study programme**	
	The goal of the course is to introduce the students with the advanced concepts of relationaldatabase systems, data modelling, management and maintenance, as well as the development ofdata centric information systems. Also, the students will acquire strong theoretical and practicalknowledge about the novel features and extensions of the relational and non-relational databasesystems, as well as the contemporary issues in the database systems development.	
7.	**Contents of the study programme**	
	Advanced data modelling – standards, model types and patterns; Detailed architecture of thedatabase management systems, database security and recovery; Query execution and optimizationdata indexing, partitioning and clustering; Parallel and distributed database systems, replication;Transactional and analytical database systems, Object-oriented and object-relational databases,object - relational mapping; Web oriented and mobile systems and databases; Practicalimplementation of advanced data modelling techniques and tools, database administration anddatabase performance management; Tools for replication and recovery; Advanced SQL; Databaseprogramming.	