



403311 Fundamentals of Database Systems

[3 cr., 3, 0] Databases are at the heart of modern commercial application development. Their use extends beyond this to many applications and environments where large amounts of data must be stored for efficient update and retrieval. Their principles and fundamental techniques are being extended today to the Web and to novel kinds of data, like XML. The purpose of this course is to provide an introduction to the principles of database systems. We begin by studying database design, covering the entity relationship model. We will then cover the relational data model, relational algebra and SQL. As a newer model, we will cover XML and some XML query languages. We will take a deeper look at database query languages and their connection with logic and with complexity classes