

CSCI S-T. Database Management Systems (CRN: 31206)

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This course introduces the concepts of database design and the techniques for manipulating data structures via database management systems. Throughout the course students will work on a case study, preferably from their own backgrounds but provided for them if needed, to gain experience in mapping the information needs of an organization to a database. This will include a discussion of the different database software currently used by organizations and issues pertaining to their use such as concurrency, deadlock, recovery, distribution, security, and integrity. Students will acquire familiarity with the different database models with special emphasis on the relational model, as well as experience in using both the intuitive and normalization approaches for database modeling and design, and SQL and QBE for data manipulation. Also included is a discussion of client-server architecture and trends and future directions in database systems, including a discussion of the object-oriented model.