

I IST 658 – Microcomputer Database Development

Catalog description

Database principles for microcomputers, with an emphasis on relational database management systems (DBMS) for applications development in the library and information fields. Database design, creation, and maintenance; the user interface; programming concepts. Creation of a working database system.

Refined description

Database principles and their application within the library and information fields. Emphasis on the relational model and Structured Query Language (SQL). Operational database design, construction, and maintenance. Creation of a working database system using a personal computer. Advanced topics include distributed database systems, data warehouses, local area networks, and client / server strategies.

Prerequisite: None

Optional text: Joe Celko. Joe Celko's SQL For Smarties: Advanced SQL Programming. 2nd ed. San Francisco, CA: Morgan Kaufman (2000). or 3rd ed. (2005)

Instructor: Ted Borys
Class number: 7165, spring 2009
Lecture: Wednesday 7:15 – 10:05 PM
Room: LC-12

Final grade: 50% quizzes, 50% assignments

Extra credit: None offered

Academic integrity: Students are expected to do their own work and abide by University policy

Rationale

Information technology rests on four basic foundation blocks: operating systems, networks, programming, and database management systems. This course is a graduate-level introduction to database systems. The assignments will be done using Microsoft Access, but this course is definitely not “all about Access”. The SQL syntax taught is independent of any vendor’s software product. Also, there is more to learning about database systems than simply mastering SQL syntax. Major topics include: database concepts, logical database design, physical data structures, relational concepts, SQL, transaction management, and several advanced topics including distributed databases, data warehouses, and client / server technologies. If your future includes working with database systems as a researcher, programmer, database administrator, business analyst, data analyst, project leader, line manager, or executive manager, this course is invaluable.