

Course Number & Name: LIS 458 - Database Management

Description: Principles and practices of database management and database design. Discussion and practice cover database application lifecycle, data modeling, relational database design, SQL queries, reports and other interfaces to database data, and documentation. Lectures also cover Web databases, XML, multimedia databases, and ethical and privacy issues associated with database systems. Individual and group projects.

- **Prerequisites:** LIS 488 and Technology Orientation Requirement
- **Audience (level, environment/setting):** Masters students, any student interested in database systems within and without a library context; any
- **Student Learning Outcomes** [by number]: 5, 6, 10
- **Topics/List of Lectures:**
 - Database management systems
 - Database concepts
 - Database design process
 - Conceptual design, including Entity-Relationship modeling
 - Entity-Relationship modeling practice
 - Logical design
 - Data normalization
 - SQL and Access queries
 - Interfaces to database systems
 - Web and XML databases
 - Multimedia databases
 - Data warehousing, data mining, and privacy issues
 - Importing/exporting data
- **Suggested Textbooks/Readings**
 - Hernandez, Michael J. (2003). Database Design for Mere Mortals: A Hands-On Guide to Relational Database Design. Reading, MA: Addison-Wesley.
 - Date, C.J. (2004). An Introduction to Database Systems, (8th Edition). Pearson Education.
 - Elmasri, R. & Navathe, S. (2004). Fundamentals of Database Systems (4th edition). Reading, MA: Addison-Wesley.
- **Course History:**

October 2004: discussed at curriculum retreat; new description voted in 10/04

- **Document prepared by:** Gary Geisler, 10/04