

CIS 250 - Database Theory and Design

5.0 Credits

Designed to recognize data as a business resource. Database models are discussed from both a programmer's and a user's viewpoint. Roles of database designer and administrator will be examined. Prerequisite: Twenty credits towards an ATA degree or certificate or [CIS 116](#), or equivalent experience.

Course Objectives

Upon successful completion of this course, students will be able to:

1. Describe fundamental principals of database theory and design. [COMMUNICATE]
2. Research and analyze business data requirements. [REASON]
3. Identify high-level business rules for data modeling. [REASON]
4. Document high-level business rules for data modeling. [COMMUNICATE]
5. Create and refine conceptual and logical data models. [REASON]
6. Validate conceptual and logical data models. [COMMUNICATE]
7. Select unique identifiers and normalize the data model. [REASON]
8. Understand the role of SQL in the business and database contexts. [REASON]
9. Recognize the basic components and issues of database application design. [REASON]