Database Design and Programming  
DDP IT 612  
(3-0-4-5)  

Minal Bhise  
minal_bhise@da-iict.org  
Faculty Bldg 1, Room 1209  
Phone 548

Overview

- Course Handout
  - Resources
  - Evaluation Scheme
- Course Plan
  - Overview
Resources

- Text Books

- Lecture on daiictpdc server
  - ‘Minal Bhise’ Folder

 Operational Details

- Class Work
  - 3 hrs/week

- Lab Work
  - 4 hours/week
  - Student must complete each lab in order to pass this course
  - Each lab will be given credit
Operational Details

- **Assignment Work**
  - Individual/ Group
- **Exams**
  - Midterm
  - Final

Evaluation Scheme

- Labs & Assignment 35%
- Midterm Test 25%
- Final Exam 40%
Course Plan

- Database Overview
  - Course Overview: basic definitions, data storage, queries, transaction management, administration
- Requirements collection and analysis, Data Models, E-R Model, Conceptual Design using E-R Model
- Relational Model
  - introduction, integrity constraints, Logical Database Design
- Relational Algebra, SQL
- Database Design & Tuning
  - FD, Normal Forms, Decomposition, Normalization, Schema Refinement

Continue....

- Transaction Management: ACID, Concurrency Control, Crash Recovery
- Database Administration and DBM Tools (Oracle/Developer 2000, postgresql)
Software Development Lifecycle

- Requirements Analysis: System Requirements Specification
- Design: Design Document
- Implementation: Software
- Testing
- Installation
- Maintenance

What is a DBMS?

- A very large integrated collection of data
- Models real world enterprise
- DBMS is a software package designed to store and manage databases