# CS 3002D
# Database Management Systems

Lecture 1

Course Overview

## About the Course

- Why DBMS ?
- A First Level course on DBMS
- Emphasis is on the Fundamental concepts of developing Database Systems
- Issues are addressed in both the User and the Designer point of view

## Course Delivery

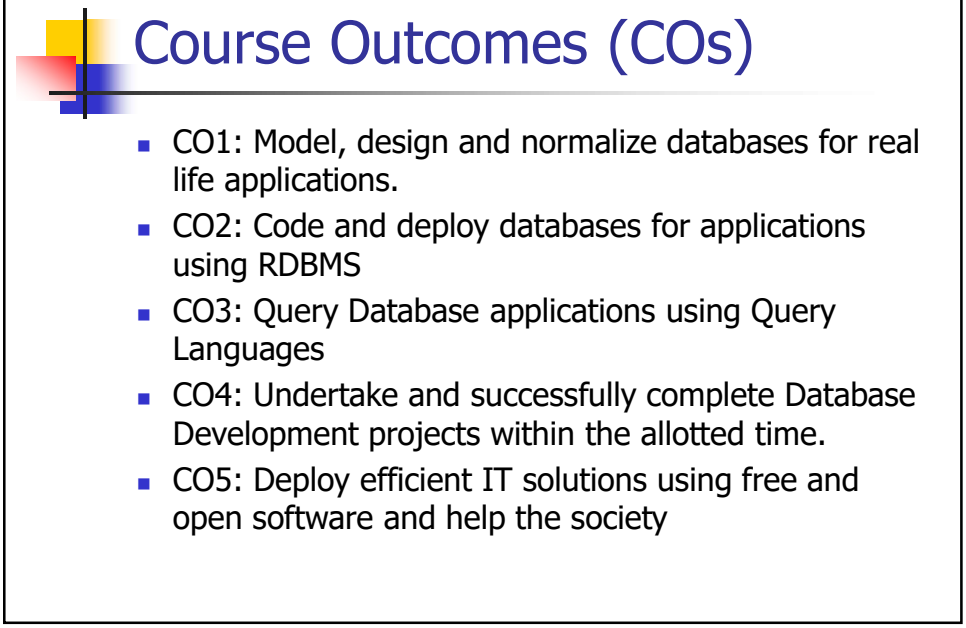
- Lecture Hours (B slot)
  - MON (11.15-12.15), TUE (8-9), THU (9-10)
- Quiz / Course Project Discussions/ Presentations:
  - B+ Slot : FRI (2-3)
- Lecture Hall
  - A: NLHC 101
  - B: ELHC 403

(Note: Classes will be conducted in the *online mode* until further notice)

## Course Instructors

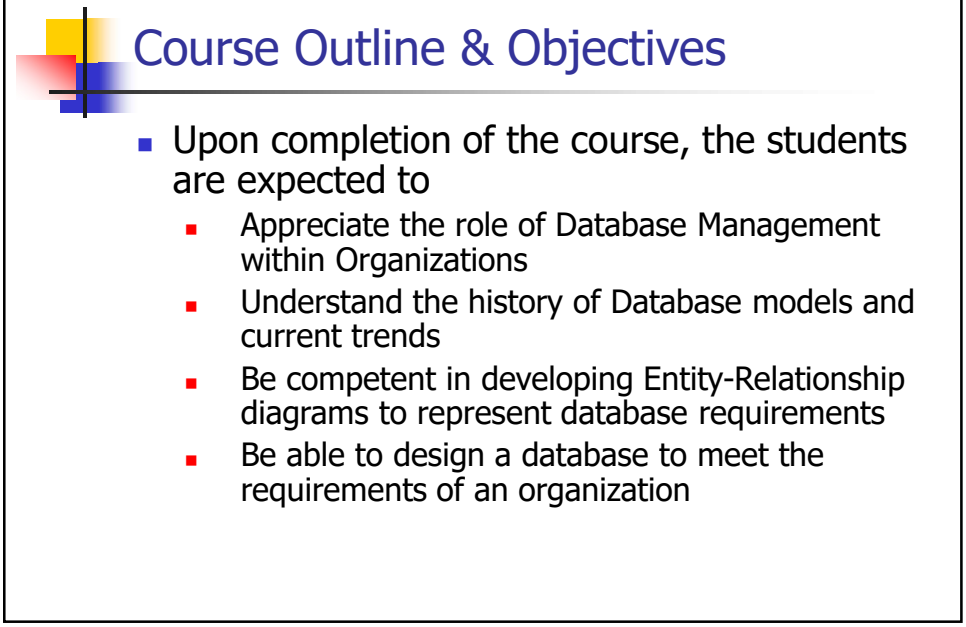

- Dr. Abdul Nazeer K A
  Room No: 203 C, CSE Block,
  Telephone: 0495-2286818
  Email **:** *nazeer@nitc.ac.in*

- Dr. Prabu M
  Room No. 103 C, CSE Block,
  Telephone: 0495-2286830
  Email: *prabum@nitc.ac.in*



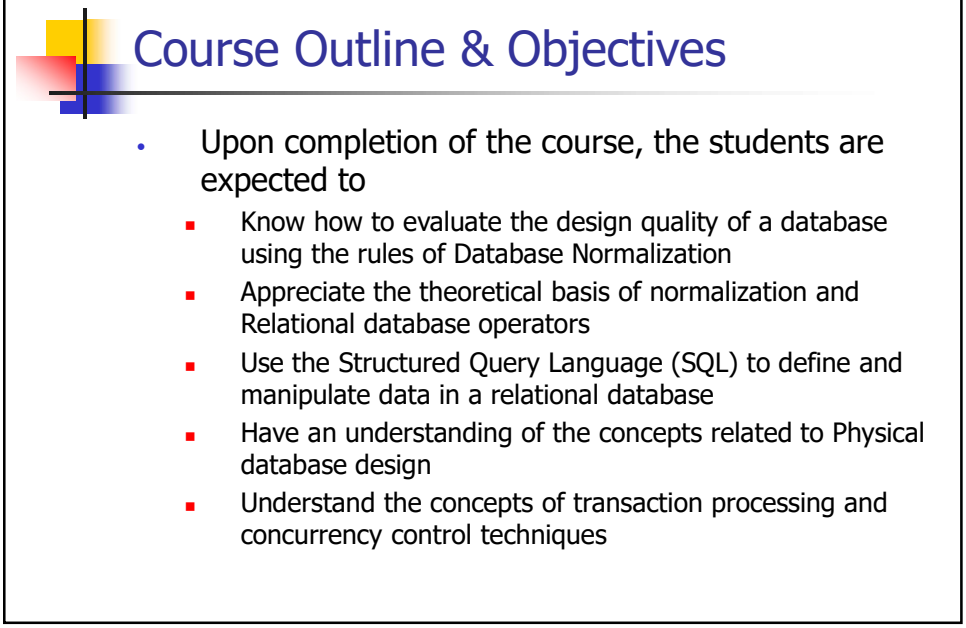
## Course Outcomes (COs)

- CO1: Model, design and normalize databases for real life applications.
- CO2: Code and deploy databases for applications using RDBMS
- CO3: Query Database applications using Query Languages
- CO4: Undertake and successfully complete Database Development projects within the allotted time.
- CO5: Deploy efficient IT solutions using free and open software and help the society



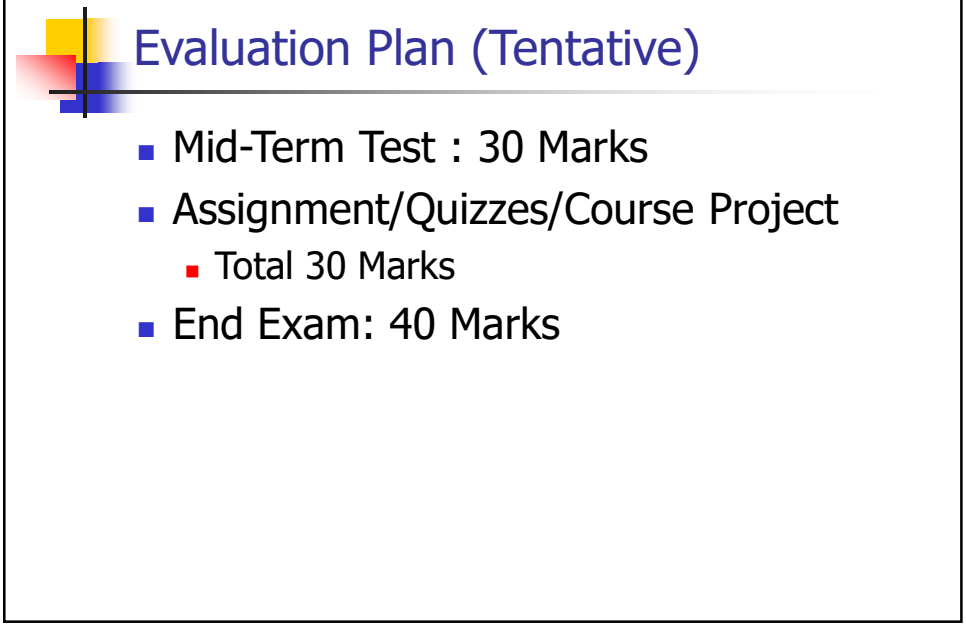
## Course Outline & Objectives

- Upon completion of the course, the students are expected to
  - Appreciate the role of Database Management within Organizations
  - Understand the history of Database models and current trends
  - Be competent in developing Entity-Relationship diagrams to represent database requirements
  - Be able to design a database to meet the requirements of an organization



## Course Outline & Objectives

- Upon completion of the course, the students are expected to
  - Know how to evaluate the design quality of a database using the rules of Database Normalization
  - Appreciate the theoretical basis of normalization and Relational database operators
  - Use the Structured Query Language (SQL) to define and manipulate data in a relational database
  - Have an understanding of the concepts related to Physical database design
  - Understand the concepts of transaction processing and concurrency control techniques



## Evaluation Plan (Tentative)

- Mid-Term Test : 30 Marks
- Assignment/Quizzes/Course Project
  - Total 30 Marks
- End Exam: 40 Marks

## Grading Policy

- Grading will be relative
  - 'S' grade reserved for truly outstanding performance.
- Even though the grading will be relative here is a tentative grade distribution:
  - 90-100: S; 80-89: A
  - 70-79: B; 60-69: C
  - 50-59: D; 40-49: E
  - <40: F

## Grading Policy

- Absence for exams/quiz without prior written permission from the instructor will be equivalent to zero marks in the corresponding exam
- There will be no makeup exams except in case of genuine reasons
  - In the event of such exceptional cases, the student must get written permission from the HoD, as per R17 of the B.Tech Regulations of the Institute.
- All issues regarding valuation of exams must be resolved within one week after the marks are announced.

## Standard of Conduct

- Each student is expected to adhere to high standards of ethical conduct, especially those related to cheating and plagiarism
- Any submitted work MUST BE an individual effort
- Any academic dishonesty will result in zero marks in the corresponding exam and will be reported to the department council for record keeping and further disciplinary actions.
- Please refer the 'Academic Integrity Policy of CSED: http://minerva.nitc.ac.in/cse/sites/default/files/attachments/news/Academic-Integrity_new_0.pdf

## Course References

- *R. Elmasri and S. B. Navathe, Fundamentals of Database Systems, 7/e, Pearson Education, 2016.*
- R. Ramakrishnan and J. Gehrke, Database Management Systems,3/e, McGraw Hill, 2003.
- P. Rob and C. Coronel, Database Systems-Design, Implementation and Management, 7/e, Cengage Learning, 2007.