



Business School
UNIVERSITY OF COLORADO DENVER

Information Systems Program

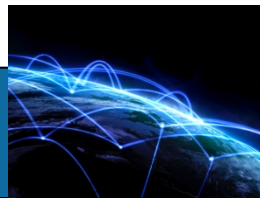
Database Management Essentials

Module 1: Course Introduction
Lesson 2: Course Topics and Assignments

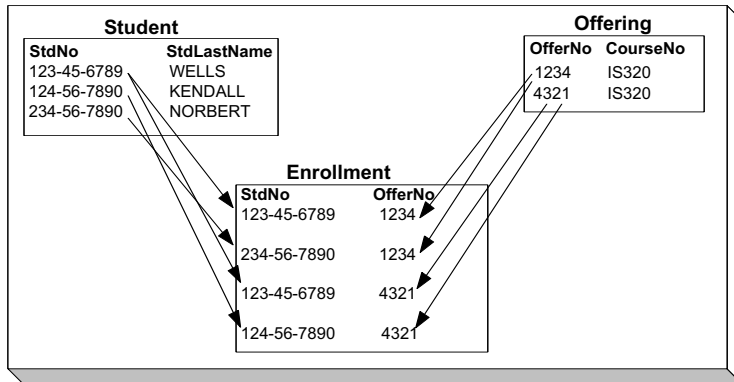


Lesson Objectives

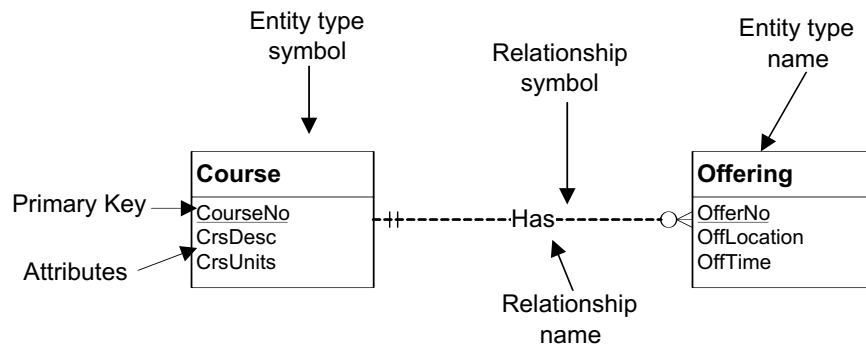
- **Understand course topics and course flow**
- **Understand assessments especially practice and graded problems**
- **Obtain software**



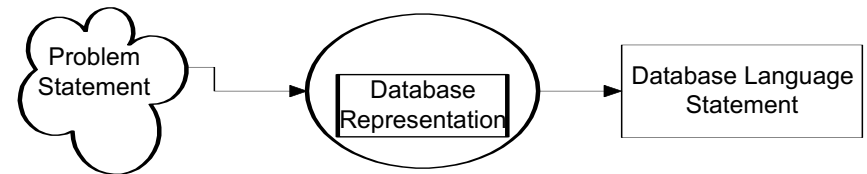
Course Topics



Integrity Rules



Data Modeling



Query Formulation

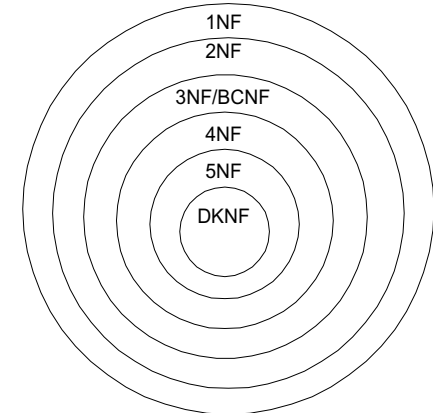
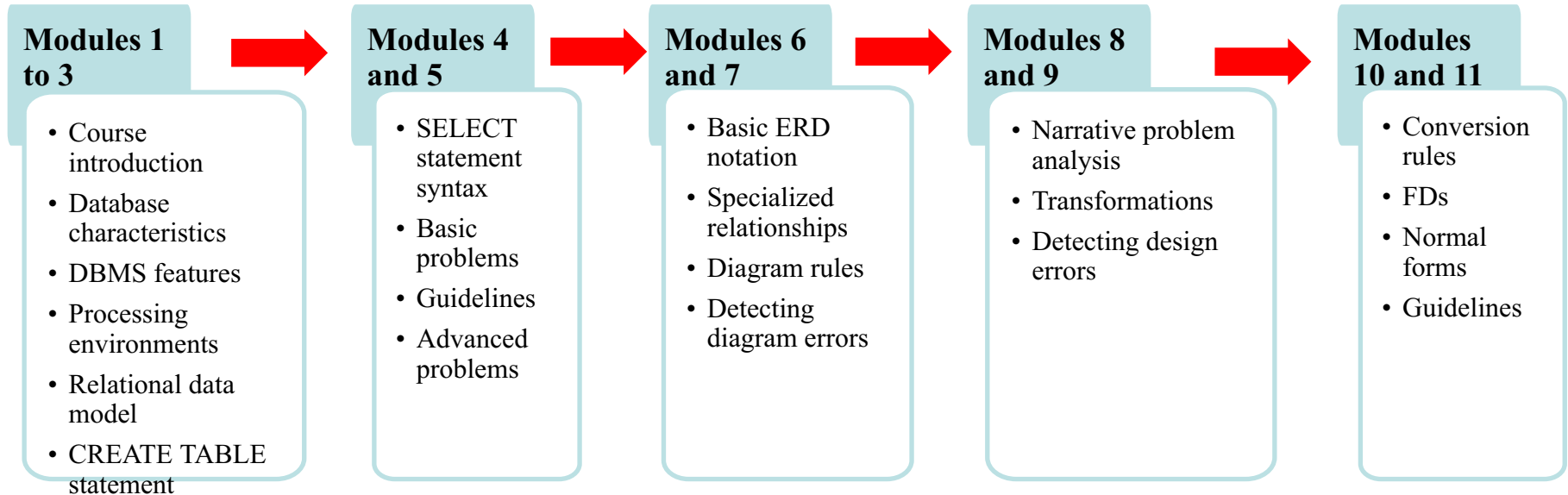


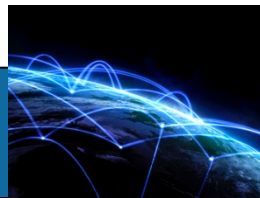
Table Design



Course Flow

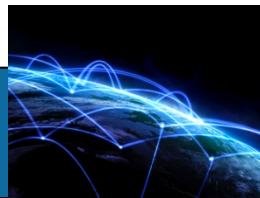


* 2 Modules / week



Assessments

- **Practice problem sets for most modules** * Grade
 - Similar to graded problem sets
 - Solutions and detailed comments
 - Coverage of highlights in some video lectures
- **Graded problem sets for most modules**
 - Primary part of grading
 - Peer review for each problem set
 - Associated quizzes for some problem sets
 - Ungraded practice problems for most modules



Problem Sets

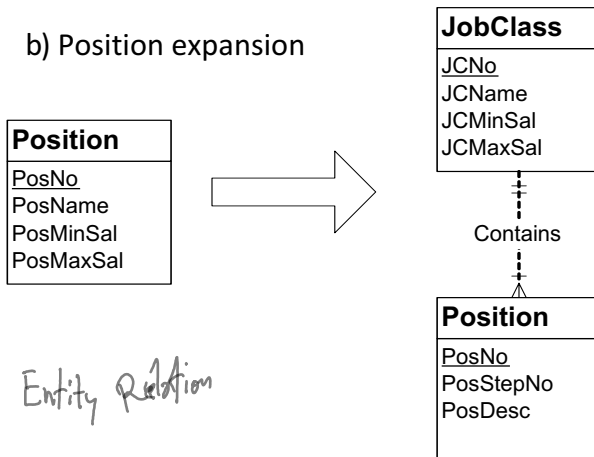
```
CREATE TABLE Enrollment
(
    OfferNo    INTEGER,
    StdNo      CHAR(11),
    EnrGrade   DECIMAL(3,2),
    CONSTRAINT PKErollment PRIMARY KEY(OfferNo, StdNo),
    CONSTRAINT FKOfferNo FOREIGN KEY (OfferNo)
        REFERENCES Offering,
    CONSTRAINT FKStdNo FOREIGN KEY (StdNo)
        REFERENCES Student )
```

```
SELECT StdMajor,
       AVG(StdGPA) AS AvgGpa
FROM Student
WHERE StdClass IN ('JR', 'SR')
GROUP BY StdMajor
HAVING AVG(StdGPA) > 3.1
```

Create Tables

Query Formulation

b) Position expansion

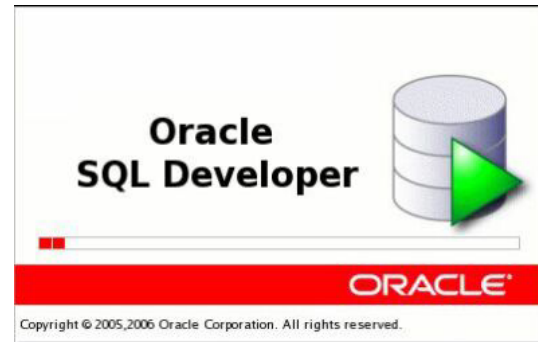


StdNo → StdCity, StdClass
 OfferNo → OffTerm, OffYear,
 CourseNo, CrsDesc
 CourseNo → CrsDesc
 StdNo, OfferNo → EnrGrade

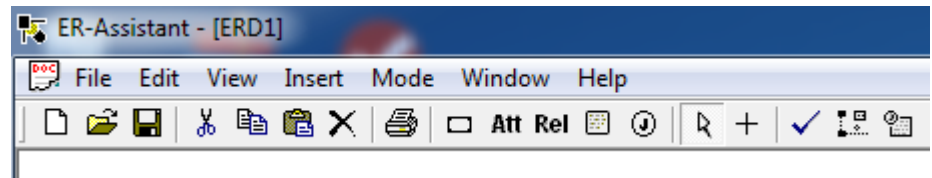
Data Modeling

Table Design

Tools



ER-Assistant M6-M9



Summary

- **Basic course on database management concepts and skills**
- **Detailed course topics**
- **Tools and assignments to develop and apply skills**
- **Career opportunities for information technology professionals along with business and computer science students**

