Business School
UNIVERSITY OF COLORADO DENVER

Information Systems Program

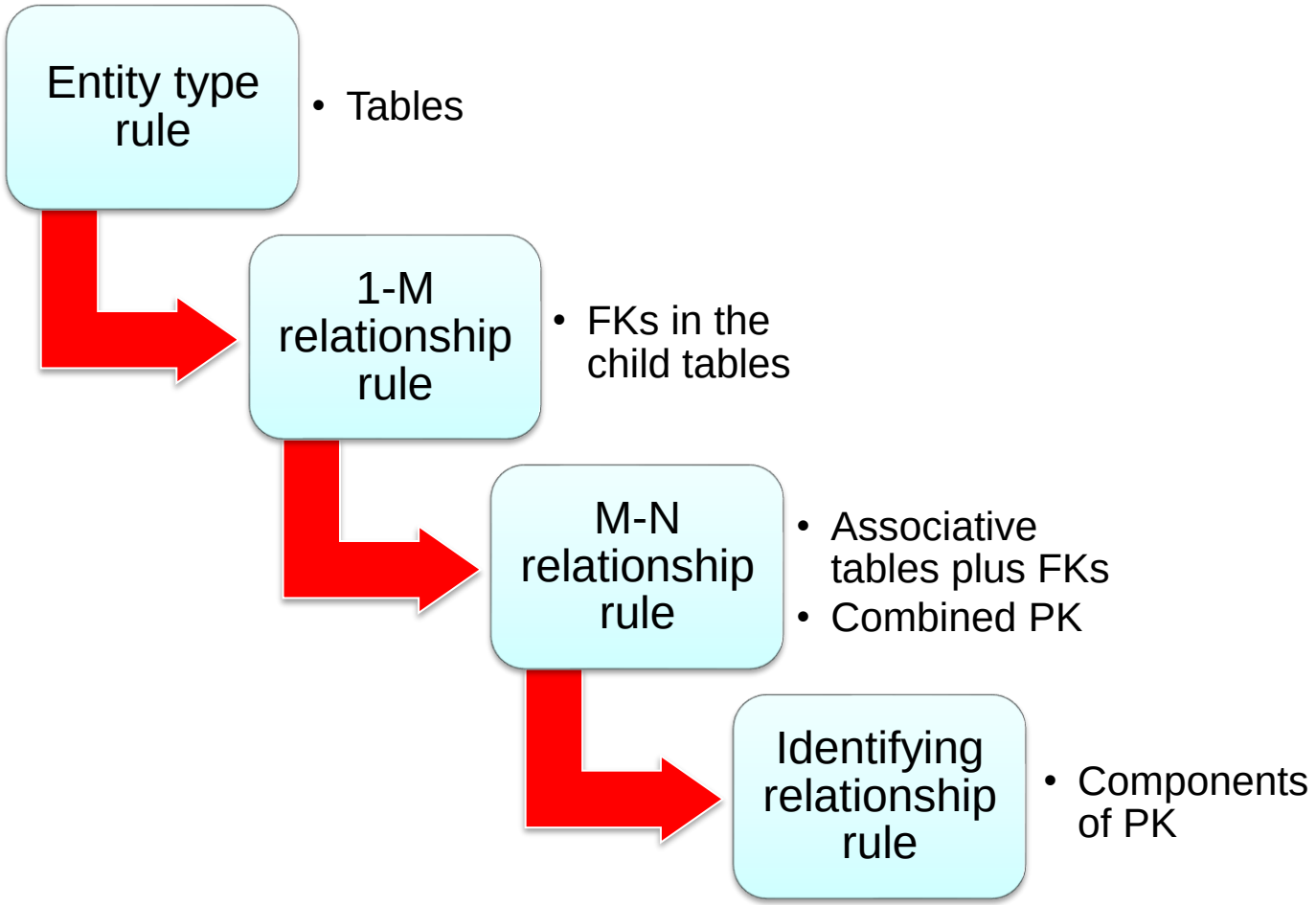
Module 10
Schema Conversion

Lesson 2: Conversion Rules

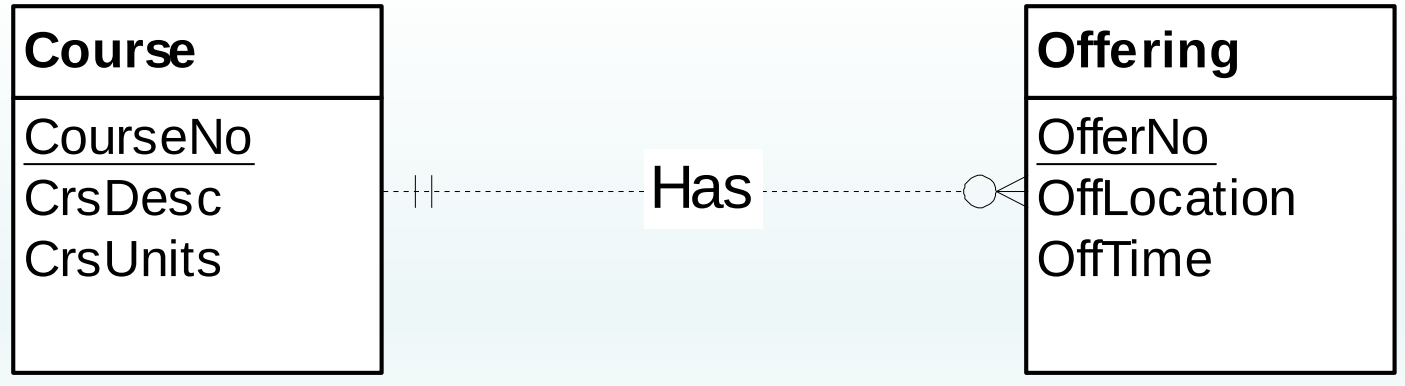
Lesson Objectives

- Apply each rule
- Apply ordering of rules
- Reflect on the notation differences

Conversion Rule Application



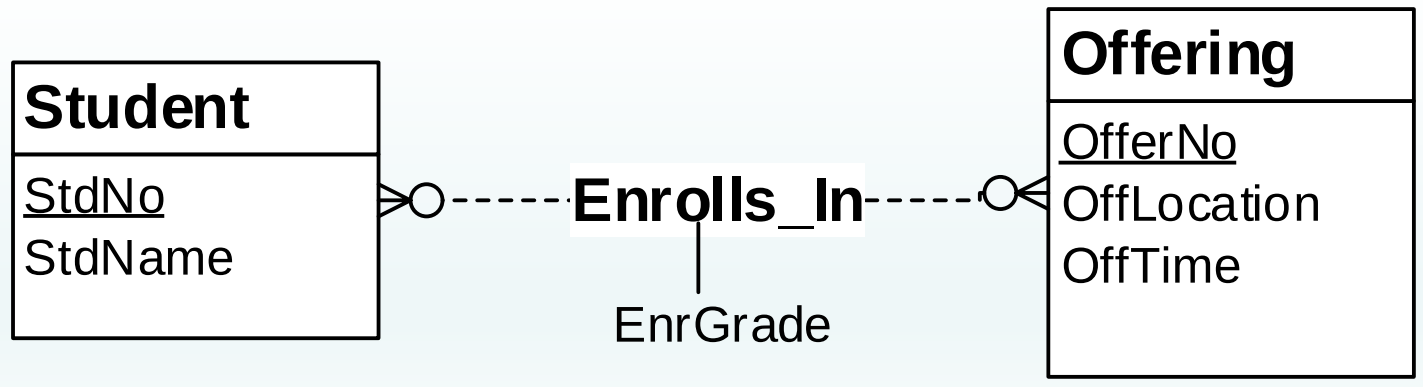
Application of Basic Rules (I)



CREATE TABLE Course (…, PRIMARY KEY (CourseNo))

CREATE TABLE Offering (…, PRIMARY KEY (OfferNo), FOREIGN KEY (CourseNo) REFERENCES Course, CONSTRAINT CourseNo NOT NULL)

Application of Basic Rules (II)

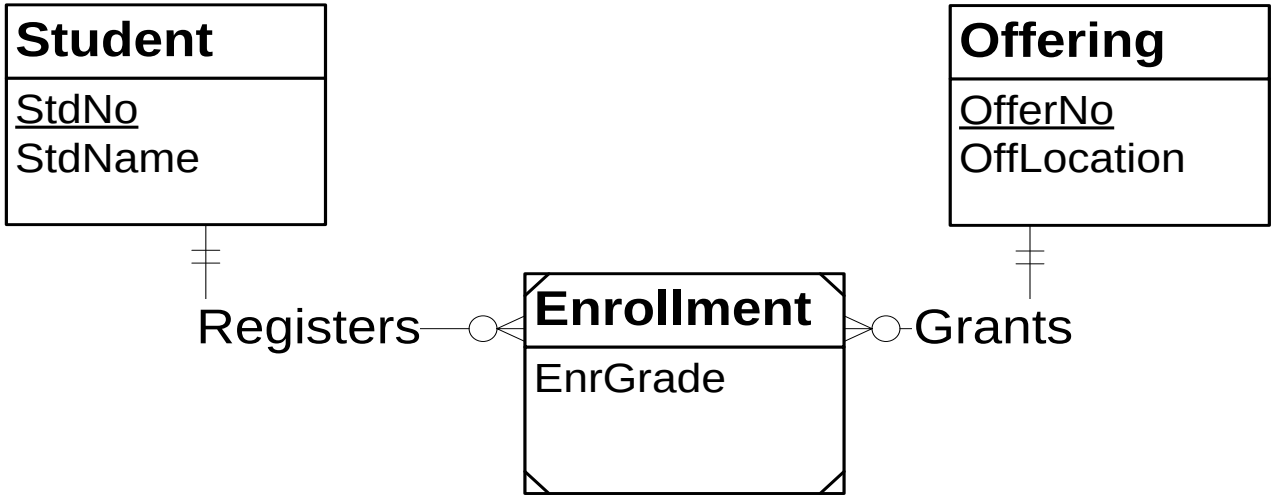


CREATE TABLE Student (…, PRIMARY KEY (StdNo))

CREATE TABLE Offering (…, PRIMARY KEY (OfferNo))

CREATE TABLE Enrollment (…, PRIMARY KEY (StdNo, OfferNo), FOREIGN KEY (StdNo) REFERENCES Student, FOREIGN KEY (OfferNo) REFERENCES Offering)

Application of Basic Rules (III)



- Same conversion result as the previous example but different application of rules
  - 3 applications of the entity type rule
  - 2 applications of 1-M relationship rule
  - 2 applications of the identifying relationship rule

Summary

- Most conversion using the basic rules
- Knowledge of conversion rules clarifies notation differences
- Database design tools perform conversion