

## Cpt-140 Database Concepts

### Week 2: The Relationship Model 1 (RM1)

#### Learning Objectives.

In this topic we look at Entity-Relationship modeling (or ER Diagram). This step formalises the information to be recorded in a database.

- ☐ Understand the connection between tables and relations.
- ☐ Describe the purpose of a schema.
- ☐ Explain the meaning of relational terms including *Tuple*, *Domain*, *Attribute* and *Key*.
- ☐ Know the correct SQL code to create a relation and demonstrate with an example.
- ☐ Know the definition of a *Primary Key* and be able to give examples.
- ☐ State the domain constraints on the primary key.
- ☐ Know what a *Foreign Key* is as well as how and why it is used.
- ☐ Know how to define Primary Keys and Foreign Keys in SQL.
- ☐ Understand how Primary Keys and Foreign Keys enforce *Referential Integrity*.
- ☐ Give examples of SQL queries that fail due to integrity constraints.
- ☐ Be aware of the case insensitivity of SQL key words.
- ☐ Know what *terminator* characters are used to execute a query.

#### Reading for this week;

These Sections from the text book.

2.1 , 2.2 , 2.3 and 2.5