

## Cpt-140 Database Concepts

### **Week 8 : The Entity-Relational Model 2 (ER2)**

#### **Learning Objectives.**

In this topic new concepts are introduced to improve how E-R diagrams reflect the real world. The concepts of the Weak Entity and the multi-way relationship are examined. How these new concepts work and how they map into relations is also considered. The important topic of what Functional Dependencies come from these new concepts is covered also.

- ☐ Understand the difference between a regular entity and a Weak Entity.
- ☐ Know how Weak Entities are represented in an E-R diagram.
- ☐ Understand when the use of a weak entity is appropriate
- ☐ Understand and know how to use multi-way relationships.
- ☐ Be aware of the multiplicities that apply to multi-way relationships
- ☐ Know what Functional Dependencies apply to both Weak Entities and Multi-way relationships.
- ☐ Know how to map these new concepts into a relational schema.

#### **Reading for this week**

These Sections from the text book.

4.1.7 , 4.2 , 4.4 , 4.5.3 , 4.5.4