

# **Intro to Discrete Structures**

## **Lecture 10**

Pawel M. Wocjan

School of Electrical Engineering and Computer Science  
University of Central Florida

# Membership Table

$A$	$B$	$C$	$B \cup C$	$A \cap (B \cup C)$	$A \cap B$	$A \cap C$	$(A \cap B) \cup (A \cap C)$

# Generalized Union

Definition 6: The **union** of a collection of sets is the set that contains those element that are members of at least one set in the collection.

We use the notation

$$A_1 \cup A_2 \cup \dots \cup A_n = \bigcup_{i=1}^n A_i$$

to denote the union of the sets  $A_1, A_2, \dots, A_n$ .