# CSI 33 LECTURE NOTES (Ojakian)

### Topic 7: Queues

#### **OUTLINE**

(References: 5.3)

- 1. Queues
- 2. Applications of Queues

## 1. Basic Operations of Queue

- (a) Recall the Mathematician child class of RPG Character. Note that the theorems are a queue.
- (b) Two fundamental operations: enqueue and dequeue
- (c) May have a few others: queue size and look-at-front

PROBLEM 1. See Queue class written in Python. Experiment with it.

**PROBLEM 2.** How is this inefficient, and how could we use a linked list to improve it? Actually you will program this in the next HW!

### 2. Queue: Making a pass through data

**PROBLEM 3.** Write a class StringProcess on which you can do the following:

- (a) Load and unload a string
- (b) A method which takes a list of one character symbols and removes these from the string.
- (c) A method which takes a string and inserts this between each character in the string.

### 3. Application to Simulation

PROBLEM 4. Look at and experiment with simulation code.