**Data Structures and Algorithms II**

**User's Manual for Project 2**

**Setup and Compilation**

1. Download and unzip the submission from eLearning on a Linux box in the multi-platform lab.

2. The submission includes:

* main.cpp – The main method
* AnalyticalModel.cpp – Contains methods to compute the analytical model of input values
* AnalyticalModel.hpp – Header file
* Customer.cpp – Stores information about customer arrival and departure times
* Customer.hpp – Header file
* Event.cpp – Responsible for generating arrival and departure events
* Event.hpp -Header file
* Input.cpp – Responsible for gathering and storing input from the user
* Input.hpp – Header file
* PQ.cpp – A priority queue for storing events
* PQ.hpp – Header file
* UserManual.docx (this file)
* UML.jpg – The class diagram

3. Environment: This program has been tested in the multi-platform lab and will run there.

4. Compiling. This program includes a Makefile. At the command line in Linux, type make. The program produces an executable entitled main

**Running the program.** Be sure all files are in the same directory as the executable. Issue the command ./main

User input:

The program will then ask for the following values:

* The number of arrivals to simulate (we will test with 1000 - 5000)
* The average arrivals in a time period.
* The average number served in a time period.
* The number of service channels (1 to 10)

*Note: If user interaction were required, it would be described in detail here. If the interface is a GUI, you should have detailed screen shots of all required interactions.*

**Output:** All output goes to the console. Output will be similar to this:

Po = 0.5

L = 0.75  
W = 0.375  
Lq = 0.083  
Wq = 0.0417