

Faculty of Science

**Course**: CSCI 1060U: Programming Workshop

**Lab:** #7

**Topic:** Classes and Queues in C++

**Introduction**

This lab will focus on implementing a queue class in C++.

**Activity #1**

In C++ create a queue class with the following functions:

* Constructor
* Destructor
* isEmpty function – determines if the queue is empty.
* printQueue function – prints the contents of the queue from front to back or back to front depending on the value of the parameter:
  + bool forward
* add function – adds a node with the given data at the back of the queue.
* remove function – removes the node at the front of the queue and returns it’s data.

Each node in your queue should contain an integer called data. You can use the stack class from the in-class exercises as a starting point.

You should submit all C++ source files for this lab.

***NOTE:*  This is an individual lab and all source code must be written independently.**

**For this lab and all future labs you are require to comment your source code and use the code style guidelines discussed in the lectures. Failure to follow code style guidelines will result in marks being deducted – even if the lab solution is implemented correctly.**