Dr. Gibbons & Mrs. Awan,

The purpose of this letter is to notify you
- Where I am at knowledge base wise within the course sequence of material/topics.
- What my plan of action is leading forward to catch up in the course.
- Have this document be a basic reference guide to my plan of action for the week of the 27th.

Late for the following Lab Assignments
- Lab02
- Lab03

Status for Topic Comprehension

Red Not antiquated
I have listened to the lecture, completed a boardwork, but have not done any further study

Orange Familiarized, Unpracticed
I have read about the topic, reviewed and made notes, but I have not made any mini practice programs on the topic

Green Well Studied, Well Practiced
Revisited Boardwork, Read, Reviewed, Built mini practice program(s)

Plan of Action
- Withdrew from a separate course to ensure time allocation could be better suited for this course.
- Will attend office hours, TA Office Hours, and ACM Tutoring for Specified Topics and Lab Expectations
- Will generate a reading list for topics
- Will focus on one thing at a time, and look at the overall picture solely for the purpose of concrete planning (i.e. lab drawing prep-work, study guides, review, etc.). Will also implement good study habits by visiting topics daily, even if it's for just for a minimum amount of time. ~~procrastination.~~

Topic Schedule

Date	General Topic	Lab	
08/23	Introduction		
08/30	Exceptions	Assigned	Lab 01: Board Games
09/01	Templating		
09/03	Intro to Inheritance		
09/08	Inheritance, Classes & Dynamic Arrays		
09/10	Polymorphism		
09/13	Polymorphism, Pure Virtual, Class Pointers	Due	Lab 01: Board Games
		Assigned	Lab02: Shape Interface
09/15	Nodes		
09/17	Nodes and Stack Interfaces		
09/20	Nodes and Stack Interface Continued	Due	Lab02: Shape Interface
		Assigned	Lab03: Stacks
09/22	Requirements for Templated Classes		
09/24	Stacks, Queues, Enqueue, Dequeue, Nodes		
09/27	Lists	Due	Lab03: Stacks
		Assigned	Lab04: Elevator Action
09/29	Lists		
10/01	Recursion		
...			

Topics requisite for Lab02

General Problems for Incompletion of Lab02:
- Unidentified Inheritance Structure for Classes
- Unidentified Flow of Control Sequence, from File I/O, Data Initialization, Implementation, to final Cout.
- Conceptualization issues with pointer array of shape pointer
- Lack of preparation for procedure steps for starting lab02

Pointers & Dynamic Arrays
Free-store basics and

Classes
Defining Classes and Member Functions
Properties of Public and Private Members
Constructors for Initialization
Default Constructor
Constructors with No Arguments
Member Initializers and Constructor Delegation

Arrays and Classes
Arrays of Classes
Arrays as Class Members
Pointers of Class Type

Classes and Dynamic Arrays
Destructors
Pointers as Call-by-Value Parameters
Copy Constructors
Operator Overload

Classes to Produce Abstract Data Types
Class Implementation
Class Interface

Exception-Handling Basics
Throw Statement
Catch Block
Try Block
Catching Multiple Exceptions
Throwing an Exception in a Function
Exception Specification
Exception Specification in Derived Classes
When to throw an Exception
Nested try-catch blocks
Exception Class Hierarchies
Testing for Available Memory
Re-throwing an Exception
std::runtime_error

Inheritance
Derived Classes
Defining Derived Classes
Constructors in Derived Classes
Redefining an Inherited Function
Implementation for a Derived Class
Overloading an Inherited Function
Function Signature

Inheritance Details
Assignment Operators
Copy Constructors in Derived Classes
Destructors in Derived Classes
The const Parameter Modifier
Virtual Functions
Interface & Implementation for Base Classes
Use of Virtual Functions
Overriding
Polymorphism
Late Binding

Topics requisite for Lab03

General Problems for Incompletion Lab03:
- Incomplete Lab02
- Unfamiliarized with the Topics

Pointers and Linked Lists
Nodes
nullptr
Linked Lists
Searching a Linked Lists
Pointers as Iterators
Inserting and Removing Nodes Inside a List
Structures
Linked Structors
Node Pointers

Stacks and Queues
Stack Classes
Queues
Interface for Queue Class
Implementation for Queue Class
Queue Class
push(), pop(), peak(), empty()
Last-in/first-out Data Structure
Interface for Stack Class
Stack Class Implementation
-> Operator
Front of the List
Back of the List

Templates
Templates for Algorithm Abstraction
Templates for Functions
A Template overloads a Function Name
Templates with more than one type parameter
How to Define Templates
Function Template Declaration and Definition
Algorithm Abstraction
Type Parameters for Function Templates
Declaring Objects after a Class Template is Defined
Syntax for Class Templates
Defining member functions for a Class Template
Class Template Definition, Declaration
Type Definitions
Interface for Class Template
Implementation for Class Template
Interface for Class Template without Implementation
Implementation of Class Templates with Overloaded Operators