TERM:

INSTRUCTOR:

COURSE CODE: CSC-214

OFFICE HOURS:

COURSE TITLE: Data Structures and Advanced Programming

OFFICE LOCATION:

DAY(S) AND TIME(S):

EMAIL:

LOCATION:

PHONE:

COURSE PREREQUISITE: CSC-115 OR CSC-117

CREDITS: 3

COURSE DESCRIPTION:
Covers the design, analysis, and implementation of data structures and algorithms to solve problems using an object-oriented programming language. Topics include elementary data structures, (including arrays, stacks, queues, and lists), advanced data structures (including trees and graphs),the algorithms used to manipulate these structures, and their application to solving problems.

STUDENT LEARNING OUTCOMES:
Upon completion of this course, students should be able to:

1. Formulate and apply object-oriented programming, using C++, as a modern tool to solve problems.
2. Demonstrate an understanding of basic data structures (such as an array-based list, linked list, stack, queue, binary search tree) and algorithms.
3. Demonstrate the ability to analyze, design, apply and use data structures and algorithms to solve problems and evaluate their solutions.

TEXTBOOK AND SUPPLEMENTAL MATERIALS:

Starting out with C++, by Gadis

GRADING POLICY:

Item	Weight
Three Exams	65%
Programming Project	35%

SAMPLE COURSE SCHEDULE:

Week 1	Review of Array Sorting and Searching
Week 2	Class Pointers Struct Linked List
Week 3	**Test 1** Linked List Continues
Week 4	Stack Queue **Test 2**
Week 5	Recursion Binary Tree
Week 6	**Test 3**

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