Course Information
Division: Business
Contact Hours: 4
Total Credits: 4

Prerequisites: CIS 150 (Computer Science I)

Course Description
This course continues the exploration of computer science begun in CIS 150, Computer Science I. Topics to be covered include: object-oriented programming in C++, pointers, recursive algorithm design and implementation, sorting, searching and file processing. Abstract data types studied include: stacks, queues and lists. This course is designed for students who wish to continue their computer science education beyond the community college level.

This course is a required core course for students pursuing an AAS in Computer Science.

Program Outcomes Addressed by this Course
Upon successful completion of this course, students should be able to meet the program outcomes listed below:
A. Demonstrate and utilize necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.
B. Understand the importance of life-long learning, and be prepared to learn and understand new technological developments in their field.
C. Understand the ethical and technical context of their computer science contributions and their obligations therein.

Course Outcomes
In order to evidence success in this course, the students will be able to:

1. Create a complete abstract data type.
   A. Demonstrate and utilize necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.

2. Demonstrate the advantages of using object oriented programming for program development.
   B. Understand the importance of life-long learning, and be prepared to learn and understand new technological developments in their field.

3. Demonstrate some of the techniques used to write robust computer programs.
   C. Understand the ethical and technical context of their computer science contributions and their obligations therein.