Course Prefix and Number: CIT 243

Course Title: Data Structures

Course Prerequisite: CIT 150


Course Description: This course focuses on the definition, representation, and manipulation of basic data structures such as arrays, stacks, queues, trees, and graphs, with an emphasis on practical applications.

Learning Outcomes:
At the end of this course, the student will:

A. explain sorting and searching operations;
B. implement array-based and linked lists;
C. describe stacks and queues; and
D. describe complex data structures.

To achieve the learning outcomes, the student will or will be able to:
(The letter designations at the end of each statement refer to the learning outcome(s).)

1. describe how searching and sorting algorithms function (A);
2. analyze searching and sorting algorithms (A);
3. implement array-based lists using Java programming (B);
4. implement linked lists using Java programming (B);
5. describe stacks and queues (C);
6. describe tree structures, priority queues, hash tables, and graphs (C); and
7. identify and avoid common problems associated with data structures (A,B,C).

Course Requirements:
1. A student must successfully complete the course with an average of 70% or above on the combined learning outcomes.
2. Each student is expected to attend classes regularly; excessive unexcused absences constitute grounds for suspension (refer to the student handbook for attendance policies).

Course Grading Scale:

90 – 100  = A
80 – 89    = B
70 – 79    = C
60 – 69    = D
0   – 59    = F

Revised: 04/04/2016
**Attendance Policy:** The college attendance policy is available at http://www.bpcc.edu/catalog/current/academicpolicies.html

**Course Fees:** This course is accompanied with an additional fee for supplemental materials.

**Nondiscrimination Statement:** Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

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