# 2. General Information

**Date**  
09/13/2016

**Department**  
Computing Sciences

**Course Prefix:**  
CSC

**Course Number:**  
200

**Course Title:**  
Cs3: Data Structures

# 3. Course Information

**Credit Hours**  
4

**Lecture Contact Hours**  
4

**Laboratory Contact Hours**  
1

**Other Contact Hours**

**Catalog Description**

CS3: Data Structures covers the fundamentals of data structures, introduction to analysis of algorithms, and team development of software applications. This course is the third in a series of three required programming courses for a traditional computer science degree. Data structures covered include sets, lists, stacks, queues, linked lists, binary trees, and heaps. Advanced topics include, binary search trees, search and sort algorithms, recursion, and algorithm efficiencies in software development. Students will be introduced to project management and team dynamics through the development of a large software solution.

**New Analysis Question**

**Prerequisites**

CSC-190 CSC2: Object-Oriented Programming

**Co-requisites**
Grading Scheme
Letter Grade

This course can be taken more than once for credit

This course is designated as satisfying a requirement in the following SUNY Gen Ed category

First Year Experience

Capstone
Yes

4. FLCC Values

College Learning Outcomes Addressed by the Course
- Inquiry
- Interconnectedness
- Vitality
- Perseverance

5. Course Learning Outcomes

Course Learning Outcomes
1. Identify and implement advanced data structures for the manipulation of data
2. Integrate multiple algorithms to form a complex computer solution
3. Analyze and evaluate the efficiencies of available data structures in order to select the appropriate solution for a given algorithm
4. Plan, prioritize, and build a complex computer solution within a collaborative work environment

6. Program Affiliation

This course is required as a core program course in the following program(s)
- AS Computer Science
- AS Information Systems
- AS Game Programming and Design

8. Outline of Topics Covered

Outline of Topics Covered in Course
CSC200TopicsOutline.docx

New Analysis Question

Outline of Topics Covered