

# Course Abstract

*If you need accommodations due to a disability, contact Disability Services in Edison Hall Room 100, 732.906.2546.*

*To foster a productive learning environment, the College requires that all students adhere to the Code of Student Conduct which is published in the college catalog and website.*

**Course ID and Name: CSC133 - Introduction to Computer Science using C++**

**Department: Business and Computer Science**

Chairperson or Course Coordinator: Dr. Aslihan Cakmak

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**Prerequisites:** MAT 014 or appropriate score on the College placement test

**Co-requisites:** None

**Course Description:**

This course presents an introduction to programming and problem solving using an object-oriented programming language C++. Algorithm development and basic problem solving techniques are introduced. Fundamental topics of computer programming including sequence, selection, repetition, input/output, functions, parameter passing, scope, lifetime and arrays are discussed in detail. The course is recommended for students in other programs seeking a rigorous introduction to computer programming.

**General Education Status:** N/A

**Credits:** 4

**Lecture Hours:** 3

**Lab Hours:** 3

**Learning Outcomes:**

**Upon successful completion of this course, a student will be able to:**

1. Develop and document algorithms of moderate complexity using Input and Output capabilities.
2. Create programs of moderate complexity (150 statements) in C++ using selection structures.
3. Use one and two dimensional arrays and functions in programs.
4. Verify proper operation of algorithms and programs.

## **Course Content Areas:**

- Algorithm Development
- Basic Elements of C++
- Input / Output (CIN and COUT)
- Control Structures I (Selection)
- Control Structures II (Repetition – While, Do, For, Nested)
- Input / Output (input & output files)
- User-Defined Functions
- One Dimensional Array and Two Dimensional Arrays