

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: CSC161 - Introduction to Computer Science using Java

Department: Business and Computer Science

Chairperson or Course Coordinator: Dr. Aslihan Cakmak

Office Location: ED123

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Telephone: 732-906-2526

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 Java. Algorithm development and basic procedural and object-oriented problem solving techniques are introduced. Fundamental topics of computer programming including sequence, selection, repetition, input/output, methods, parameter passing, scope, lifetime and arrays are discussed in detail. Basic concepts of object-oriented programming such as objects, classes and class methods are introduced. This course is required of all Computer Science transfer students. This course is also 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 Java using selection structures.

3. Use one and two dimensional arrays and methods in programs.
4. Verify proper operation of algorithms and programs.

Course Content Areas:

- Introduction to Computers, Programs and Java
- Elementary Programming
- Selections
- Mathematical Functions, Characters, and Strings
- Loops
- Methods
- Arrays
- Objects and Classes