

## CUMBERLAND COUNTY COLLEGE

Course: CS 111 Computer Science I

Credits: 4

Prerequisites: None

Description:

Students will learn the fundamentals of programming in an object-oriented three dimensional interactive animation environment. Students will create animation projects using a special software package for creating animation in small virtual worlds using three-dimensional models. Students will obtain a strong core of fundamental programming concepts and problem-solving techniques providing a basis for further study in a variety of computer related fields.

Learning Outcomes

At the completion of this course, students will be able to:

- Use textual storyboards to develop algorithms;
- Use animation software to implement a program;
- Demonstrate understanding of Object-Oriented concepts such as classes, objects , methods;
- Demonstrate understanding of procedural abstraction concepts such as functions, parameters;
- Demonstrate understanding of fundamental programming concepts such as if/else selection, looping, and recursion;
- Develop interactive programs using events and event handlers.

Topical Outline

- Getting Started with Alice
- Program Design and Implementation
- Programming: Putting Together the Pieces
- Classes, Objects, Methods, and Parameters
- Interaction: Events and Event Handling
- Functions and If/Else
- Repetition: Definite and Indefinite Loops
- Repetition: Recursion

Text:

Learning to Program with Alice by Dann, Cooper & Pausch: Pearson/Prentice Hall.

## Student Assessment

(Assessment may be accomplished through projects, portfolios, exams, presentations and/or papers )

## Academic Integrity

Plagiarism is cheating. Plagiarism is presenting in written work, in public speaking, and in oral reports the ideas or exact words of someone else without proper documentation.

Whether the act of plagiarism is deliberate or accidental [ignorance of the proper rules for handling material is no excuse], plagiarism is, indeed, a “criminal” offense.

As such, a plagiarized paper or report automatically receives a grade of **ZERO** and the student may receive a grade of **F** for the semester at the discretion of the instructor.

## Tutoring & Project Assist

If you are having difficulty with work in this class tutoring is available through the Center for Academic & Student Success. If you think that you might have a learning disability, contact Project Assist at 856.691.8600 x 1282 for information on assistance that can be provided to eligible students.

## **Before Withdrawing From This Course**

If a student experiences adverse circumstances while enrolled in this course and considers withdrawing, s/he should see an advisor (division or advisement center) **BEFORE** withdrawing from the class. A withdrawal may cause harmful repercussions to completion rate standards and overall GPA which can limit or eliminate future financial aid in addition to causing academic suspension.