

# **CPS 185: Introduction to Animation and Game Development**

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**Introduction to Animation and Game Development**

**(3 credits)**

**Class Size: 10-25**

*Faculty: Ehat Ercanli, Associate Professor, Syracuse University*

*Administrative Contact: Tavish Van Skoik, Assistant Director, Project Advance*

**\*CPS 185 is NOT accepting applications for training at this time**

## **Course Catalog Description**

This course provides a visual introduction to computer programming. Students will learn the basics of programming and high-level 3-dimensional animation together, while programming animations and games for assignments and an integrative final project.

## **Course Overview**

This three-credit course offers a highly visual, non-mathematical introduction to computing and computer programming. Our vehicle is the Alice development environment, which allows students without prior experience to rapidly create 3D virtual worlds like those seen in video games.

Students will choose environments, populate them with features, creatures and sounds, and animate these elements in simulated three-dimensional space to tell stories, play games, give interactive instructions, etc. Students work in a small team creating virtual worlds for assignments and a final project, learning the principles of computer programming in the process. You will see the results of your efforts immediately. We aim to improve your skills in exact thinking, analysis/design, and problem-solving, while providing an enjoyable path to more formal study of computing and programming.

Topics covered include:

- Elementary universal computing concepts
- Alice/3D animation basics
- Variables/types/expressions/functions
- Conditional execution • Iteration (looping) constructs
- Methods • Events and user interfaces
- Structured data: Lists and arrays
- Recursion
- Programming concepts in general (particularly, object-oriented programming)
- Graphics/animation in general (time permitting)

## **Pre- / Co-requisites**

N/A

## **Course Objectives**

N/A

## **Laboratory**

N/A

## **Required Materials**

*Alice 3 in Action: Computing Through Animation*, Joel Adams

ISBN: 9781133589228 (Cengage Learning, 800-354-9706)

## **Instructor Recommendations**

N/A