NEW YORK CITY COLLEGE OF TECHNOLOGY OF THE CITY UNIVERSITY OF NEW YORK
Department of Computer Systems Technology
Department of English

CST 1102 Programming Narratives: Computer Animated Storytelling
College Option: Interdisciplinary Liberal Arts and Sciences course
(3 credits, 3 hours)

Prerequisites: ENG 1101 English Composition I and CUNY proficiency in Mathematics.

Instructors:

Prof. Reneta D. Lansiquot, Ph.D.
Office: Namm 525
rlansiquot@citytech.cuny.edu
Office Hours: Thursday from 10 a.m.–noon

Prof. Tamrah D. Cunningham
Office: Namm 913
tcunningham@citytech.cuny.edu
Office Hours: Thursday from 10 a.m.–noon

Course Description
In this interdisciplinary course, through the study of the structure of narrative, concepts of problem solving, and the logic of computer programming languages, students develop a narrative-driven video game prototype. Emphasis is placed on creative writing and computational thinking.

Course Objectives
Upon successful completion of the course, students should be able to:

- Create story concept maps.
- Demonstrate an understanding of the structure of game stories.
- Exhibit an understanding of the steps required in solving a problem using a computer.
- Demonstrate understanding of flowcharting techniques to solve an algorithm.
- Program using sequencing, repetition loops, and decision statements.
- Use a range of language, formal to informal, appropriate to subject, purpose, and audience.
- Demonstrate an understanding of object-oriented programming.
- Demonstrate understanding of various narrative structures.
- Write, proofread, and revise clear and logical sentences using correct spelling, conventional punctuation, correct grammar and syntax. Use varied sentence structure. Order and connect sentences and paragraphs effectively, using transitions and parallelism.
- Cite sources within the text and on a reference page using appropriate documentation format.

Required Book
Gaddis, Tony. *Starting Out with Alice: A Visual Introduction to Programming*. 3rd ed. New York: Addison-Wesley, 2012.

Additional readings of short narrative of various kinds are assigned (see Course Outline).

Recommended Book
Lebowitz, Josiah, and Chris Klug. *Interactive Storytelling for Video Games: A Player-Centered Approach to Creating Memorable Characters and Stories*. New York: Taylor & Francis, 2011.

New York City College of Technology Policy on Academic Integrity:
Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

Attendance and lateness:
You are expected to attend each class meeting. A student may be absent without penalty for ten percent (10%) of the number of scheduled class meetings during the semester. This percentage translates to two allowable absences from class. Two instances of lateness will equal one absence.

Final Course Grade Breakdown:

Annotated bibliography	10%
Concept mapping assignments	5%
Problem-solving assignments	10%
Writing assignments	25%
Midterm	10%
Game design document	10%
Project	20%
Final	10%

Project: For the course project, you will develop a video game prototype using Alice, a free interactive 3D graphics program that can be used to create animations. You can download Alice for free from www.alice.org. The site also contains information, tutorials, and forums on how to use Alice, which will be helpful for the course project and problem-solving assignments. The following are the project milestones with their due dates:

1. Prepare a concept map (vue.tufts.edu) of your video game background story **(Week 4)**
2. Create settings and characters (protagonist and antagonist) for your group's video game **(Week 6)**
3. Integrate videogame setting and characters **(Week 7)**
4. Implement the characters' interactions among themselves and with the world of the story **(Week 8)**
5. Develop individually a character side-quest within the group-developed video game **(Week 10)**
6. Use events to allow user interactivity with the story **(Week 12)**
7. Integrate the main story and side-quest **(Week 14)**

Game design document: analysis, design, and project description.
The following are contents of each section of the game design document:

- Analysis: Literature review, video game narrative, target audience, delivery platform, and review of competing games.
- Design: Player characteristics, game mechanics, and challenge.
- Project Description: Video game prototype description, pseudocode, concept maps and storyboards.

Required Format for Papers
All papers should be typed with 12-point standard font (e.g., Times New Roman or Arial). Page margins should be 1-inch on all sides. Handwritten papers will not be accepted.

Policy for Late Papers
Assignments should be handed in at the beginning of class. If an assignment is turned in late because of an emergency, the grade will decrease as follows:

One day late: One letter grade reduction for the assignment for each day late.
One class late: No credit for the assignment.

Course Outline:

Week	Writing	Computing	Project Milestones
1	Games Stories and Interactivity Introduction to different kinds of narratives Read and discuss Leo Tolstoy's "The Three Questions" Preparing an annotated bibliography	General problem-solving methods Introduction to logical step solutions and flowcharting	Complete problem-solving assignment 1
2	A Brief History of Storytelling in Games Short Stories—brief stories focusing on one character and event Analyzing and using literary devices	Introduction to Alice and Programming Objects (Alice/Chapter 1) Introduction to concept mapping	Read and concept map Sophocles' *Oedipus the King* Complete problem-solving assignment 2
3	The Hero's Journey and the Structure of Game Stories Myth—ancient stories meant to explain nature or life Plays—stories in the form of dialogue, meant to be performed on the stage or in a movie	Programming in Alice (Alice/Chapter 2)	Read Aristotle's "Poetics" Complete problem-solving assignment 3
4	The Story and the Characters "Unity of Action" Fantasy—fiction stories about unrealistic characters and events that would never happen	Programming in Alice (cont.) (Alice/Chapter 2) Play Cart Life	Write and concept map an original video game background story based on the departure section of the hero's journey plot structure Complete Character Design Worksheet

5	Making Stories Emotional Horror—fiction stories that are scary or horrific Video game background story presentations	Variables and Functions (Alice/Chapter 3) Play Howling Dogs	Read and concept map Richard Connell's "The Most Dangerous Game" Complete problem-solving assignment 4
6	Defining Interactive and Player-Driven Storytelling Quest narratives—the character(s) must work to achieve a goal	Variables and Functions (cont.) (Alice/Chapter 3)	Complete the hero's journey for the chosen story with your group mates Create settings and characters for this story in Alice
7	Midterm	Midterm	Group video game narrative Integrate settings and characters of the story in Alice
8	Fully Traditional and Interactive Traditional Stories Multiple-Ending Stories Science Fiction—fiction stories based on scientific fact Draft sections of game design document	Decision Structures (Alice/Chapter 4) Play Everlasting Unemployment	Read and concept map Ray Bradbury's "A Sound of Thunder" and Nathaniel Hawthorne's "Young Goodman Brown" Implement the interactions in the setting in Alice
9	Branching Path Stories Historical Fiction—fiction stories set in the past, containing some true facts	Repetition Structures (Alice/Chapter 5) Play Depression Quest	Read Frank Stockton's "The Lady, or the Tiger?" Write and concept map a branching story path character side-quest for the chosen video game narrative Implement the interactions between characters and the setting in Alice
10	Open-Ended Stories Game design document literature review	Repetition Structures (cont.) (Alice/Chapter 5)	Individually develop a character side-quest to the video game story in Alice Complete problem-solving assignment 5
11	Fully Player-Driven Stories The Argument for and Against the Supremacy of Player-Driven Storytelling	Events (Alice/Chapter 7) Play Save the Date	Complete annotated bibliography

12	Game Design Document	Events (cont.) (Alice/Chapter 7)	Using events to allow user interactivity with the story Write literature review
13	What Players Really Want: The Most Important Issue Workshopping	Methods and Functions (Alice/Chapter 6) Playtesting	Complete game design document
14	The Future of Storytelling in Games Workshopping	Methods and Functions (cont.) (Alice/Chapter 6) Flowcharting	Integrate main story and side-quest
15	Video game prototype presentations	Review and final	Revise game design document