



Broward Community College

Course Outline

STATUS: A

COMMON COURSE NUMBER: GRA 2134C

COURSE TITLE: Advanced Multimedia Animation

CREDIT HOURS: 3

CONTACT HOURS BREAKDOWN:

Lecture/Discussion	<u> 32 </u>
Lab	<u> 32 </u>
Other	<u> </u>
Contact Hours/Week	<u> 4 </u>

CATALOG COURSE DESCRIPTION:

Prerequisite: None

Co requisite: None

Continuation of Multimedia Animation to create advanced 2-dimensional animations with Lingo Scripting (or other language) to be included in multimedia applications. Students learn advanced techniques which include the following: programming concepts in Lingo (or other language), improved hypertext and buttons, using lists and properties, file input and output, debugging, object-oriented and movies in a window programming. Create scrolling graphics and text, menu bars, and custom cursors, controlling digital video and MIDI, creating games, and understanding Xtras and NetLingo and Shocking files for the Internet use. Student will create advanced animations using scripts for outputs to kiosks, games, CDs, and the Internet.

UNIT TITLES ON NEXT PAGE.

1. Defining & identifying advanced Lingo scripting.
2. Creating and enhancing hypertext, hyperlinks, buttons, and user input.
3. Creating and using lists and properties.
4. Using file input and output techniques (FILE 10).
5. Learning debugging.
6. Creating object-oriented scripts and movies in a window.
7. Creating scrolling graphics and text, menu bars, and custom cursors.
8. Controlling digital video, audio, and MIDI media.
9. Creating games.
10. Understanding Xtras and NetLingo.
11. Creating advanced 2D animation projects (defined by current industry needs.)

I. Course Overview:

Upon successful completion of this course, the students should be able to produce advanced 2-dimensional animations with Lingo scripting to include multimedia projects.

II. Units:

Unit 1. Defining and Identifying Advanced Lingo Scripting.

General Outcome:

1.0 The students should be able to define and identify advanced Lingo scripting.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 1.1 Identify Lingo scripts categories.
- 1.2 Work with global and local system and custom variables.
- 1.3 Use repeat, if case structures to improve performance.
- 1.4 Write navigation scripts.
- 1.5 Use textual scripts: strings, chunks, counting, field.
- 1.6 Use math with Lingo.
- 1.7 Manage casts with Lingo.

Unit 2. Creating and Enhancing Hypertext, Hyperlinks, Buttons, and User Input

General Outcome:

2.0 The students should be able to create and enhance hypertext, hyperlinks, buttons and user input.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

2.1 Use scripts to create and enhance hypertext and hyperlinks.

2.2 Create handlers for alert boxes, start animations, play other movies, puppet sprites, and swap cast members on stage.

2.3 Use text and modify fields and keys.

2.4 Check and modify fields and keys.

2.5 Create and adjust button states with scripts.

2.6 Create rollover and invisible button lists.

2.7 Create radio and check box buttons and sliders.

Unit 3. Creating and Using Lists and Properties

General Outcome:

3.0 The students should be able to create and use lists and properties lists.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

3.1 Create a text list

3.2 Ask for text input.

3.3 Define lists

3.4 Create database with lists and properties.

3.5 Use repeat loops, alternate sprites, and navigate with lists.

Unit 4. Using File Input and Output Techniques (File 10)

General Outcome:

4.0 The students should be able to use file input and output techniques within scripts.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 4.1 Read external text files using Lingo scripts.
- 4.2 Write to external files using Lingo scripts.
- 4.3 Create files using Lingo scripts.
- 4.4 Delete external files using Lingo scripts.
- 4.5 Write error codes into scripts.
- 4.6 Import files and database into scripts.

Unit 5. Learning Debugging

General Outcome:

5.0 The students should be able to learn debugging techniques to improve performance.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 5.1 Define debugging.
- 5.2 Identify the problem.
- 5.3 Use the debugger.
- 5.4 Use the watcher.
- 5.5 Use the message window.
- 5.6 Debug Lingo scripts.

Unit 6. Create Object-Oriented Scripts and Movies in a Window S

General Outcome:

6.0 The students should be able to create object-oriented scripts and movies in a window.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 6.1 Create parent scripts.
- 6.2 Create child scripts.
- 6.3 Understand multiple child scripts.
- 6.4 Understand multiple parent scripts.
- 6.5 Understand the ancestor script.
- 6.6 Control child objects.
- 6.7 Create scripts for movies in a window.
- 6.8 Control windows.
- 6.9 Create inactivity between windows.

Unit 7. Creating Scrolling Graphics and Text, Menu Bars, and Custom Cursors

General Outcome:

7.0 The students should be able to create scrolling graphics and text, menu bars, and custom cursors.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

7.1 Create scripts for horizontal scrolling images.

7.2 Create scripts for vertical scrolling images.

7.3 Create scripts for scrolling text fields.

7.4 Create scripts for scrolling rich text.

7.5 Create text pop-up, bitmapped, and option menus.

7.6 Install menus.

7.7 Define what is in a menu.

7.8 Remove menus.

7.9 Create scripts for custom cursors.

Unit 8. Controlling Digital Video, Audio, and MIDI Media

General Outcome:

8.0 The students should be able to control digital video (mov & mpeg), audio, and MIDI media.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 8.1 Write scripts for playing external sounds.
- 8.2 Write scripts for controlling sound functions.
- 8.3 Write scripts for digital video.
- 8.4 Synchronize graphics and sounds.
- 8.5 Synchronize digital video and graphics.
- 8.6 Write scripts for planing MIDI.

Unit 9. Creating Games

General Outcome:

9.0 The students should be able to create games.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

9.1 Identify types of games.

9.2 Write scripts for games.

9.3 Create games.

Unit 10. Understanding Xtras and NetLingo

General Outcome:

10.0 The students should be able to understand Xtras and NetLingo.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

10.1 Identify types of Xtras.

10.2 Identify NetLingo.

10.3 Create scripts for Xtras and NetLingo.

10.4 Identify or create chat, whiteboards, multi-user games and shared navigation for Internet projects.

10.5 Shock animations for the Internet with NetLingo commands.

Unit 11. Creating Advanced 2D Animation Projects (defined by current industry needs).

General Outcome:

11.0 The students should be able to create advanced 2D animation projects. Projects will be defined current industry needs, e.g., interactive kiosks, tutorials, marketing presentations, etc.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

11.1 Create advanced 2D animation projects.

11.2 Package project for end-user.

11.3 Identify cross-platform issues.

11.4 Output to CD-ROM.

11.5 Output to the Internet