

Brooklyn College
Department of Computer and Information Science

CISC 3610 [3.1] Introduction to Multimedia Programming

3 hours; 3 credits

In-depth study of multimedia programming. Multimedia authoring tools. Graphical user interface design. Multimedia project development. Effective use of media elements in a computer application and on the World Wide Web.

Objectives

1. Students will be able to create working programs that produce multimedia (text and non-text) output, including images, sound and video.
2. Students will be able to program interactive Web pages.
3. Students will be able to apply principles of good user interface design.

Syllabus

Week 1	History of Multimedia Authoring Current Uses of Multimedia Applications
Week 2	Multimedia Production Cycle Introduction to a Multimedia Authoring Program
Week 3	Data Types and Objects Variables and Arrays Loops, Conditionals
Week 4	Interface Usability
Week 5	User Input and How to Display Information Computer-Human Dialogs, Feedback Form Design
Week 6	Drawing Basic Shapes Animation Concepts
Week 7	Designing for Interaction and Non-Linear Multimedia Task and User Analysis Navigation Control Sprite Objects and Object behaviors
Week 8	Application Development

	Writing Scripts Handlers, Messages, and Events Script Variables Debugging Scripts
Week 9	Working with Images in an Image Editor Incorporation Of Images Into a Multimedia Application
Week 10	Sound Editing Incorporation of Sound in a Multimedia Application
Week 11	Video Editing Incorporation of Video in a Multimedia Application
Weeks 12	Media for the Web, Streaming Media Web Site Development
Week 13	Delivering Software, Creating a Software Package Install
One week for exams and misc. topics	

Textbooks:

- **Multimedia Concepts, Enhanced Edition—Illustrated Introductory**, *Shuman*, Thomson Learning
- **Macromedia Director MX 2004 Bible (Bible)**: *Brian Underdahl, John R. Nyquist, Robert Martin*, Wiley

Bibliography:

- **Multimedia Concepts, Enhanced Edition—Illustrated Introductory**, *Shuman*, Thomson Learning
- **Macromedia Director MX 2004 : Training from the Source**, *Dave Mennenoh*, Macromedia Press
- **Macromedia Director MX and Lingo: Training from the Source**, *Phil Gross*, Macromedia Press
- **Flash MX 2004 Graphics Animation & Interactivity**, *Mohler*, Thomson Learning
- **Multimedia Introduction to Programming Using Java**, *David Gries, Paul Gries*, Springer
- **Multimedia Web Programming**, *Adrian Moore*, Palgrave Macmillan
- **How to Do Everything with Photoshop CS**, *Colin Smith*, McGraw-Hill Osborne Media
- **Microsoft Windows Movie Maker 2 : Visual QuickStart Guide (Visual Quickstart Guides)**, *Jan Ozer*, Peachpit Press

Software Packages Used (Suggested):

- Flash (authoring tool)
- Director (authoring tool)

- Photoshop (image editor)
- Audacity (audio editor)
- Microsoft Movie Maker (video editor)