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:

- **Macromedia Director MX 2004 Bible (Bible): Brian Underdahl, John R. Nyquist, Robert Martin**, Wiley

Bibliography:

- **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

Software Packages Used (Suggested):
- Flash (authoring tool)
- Director (authoring tool)
• Photoshop (image editor)
• Audacity (audio editor)
• Microsoft Movie Maker (video editor)