Course Outline

Media Arts 202
DVD Authoring and Production

I.   Catalog Statement

Media Arts 202 is an advanced video production course which trains students in the aesthetics and techniques employed in the creation of video DVD's. Topics include media asset collection and management, MPEG-2 encoding, still and motion menu creation, interactive design, special DVD features, building and formatting the finished DVD. Students will gain proficiency with industry standard software applications.

Units - 3.0
Lecture Hours - 2.0
Total Laboratory Hours - 4.0
(Faculty Laboratory Hours - 4.0 + Student Laboratory Hours - 0 =
4.0 Total Laboratory Hours)

Prerequisite: Media Arts 103 or equivalent.

Recommended Preparation: CABOT 206 or equivalent and eligibility for English 120 or ESL 151.

Note: This class features Apple's DVD Studio Pro and Compressor software.

II.   Course Entry Expectations

Skills Level Ranges: Reading 5; Writing 5; Listening-Speaking 5; Math 2.

Prior to enrolling in the course, the student should be able to:
1. define basic cinematographic terms, concepts, and aesthetic principles;
2. define basic digital video terms and concepts;
3. recognize the difference between various digital video formats;
4. perform a variety of camera compositions and lens effects;
5. operate a variety of digital video camcorders;
6. shoot a short cinematic continuity scene on videotape;
7. edit a short cinematic continuity scene.

III.   Course Exit Standards

Upon successful completion of the required course work, the student will be able to:
1. define basic terminology and concepts used in the Digital Versatile Disc (DVD) production industry;

2. evaluate the production values of professionally produced video DVD's;
3. encode video program material into the appropriate codec(s);
4. import appropriate media assets into DVD authoring application;
5. create original still image and motion menus for DVD's;
6. design simple to intermediate interactive DVD flowcharts;
7. author an interactive video DVD of intermediate complexity;
8. build and format a finished video DVD.

IV.   Course Content

A. DVD Basics and Formats   12 hours
   1. Video DVD's
   2. Video Compact Discs (VCD's) and Super Video Compact Discs (SVCD's)
   3. Multiple sides and multiple layers
   4. DVD production pipeline
   5. DVD production team

B. Fundamentals of Interactive Design   12 hours
   1. User control
   2. Use of metaphor
   3. Visual and functional consistency
   4. Visibility
   5. Natural mapping or intuitiveness
   6. Forgiveness
   7. Aesthetic integrity
   8. Perceived stability

C. Planning the DVD Project   24 hours
   1. Determining scope of project
   2. Acquiring media assets
   3. Optimizing assets for DVD display
   4. Creating still image menus
   5. Creating motion menus
   6. Coordination with digital video editing applications

D. Encoding and Transcoding Assets   12 hours
   1. Motion Picture Experts Group 2 (MPEG-2) codec
   2. Using compressor for video encoding
   3. Variable Bitrate (VBR) Encoding vs. Constant Bitrate (CBR) Encoding
   4. Bit budgeting

E. Interactive DVD Authoring   12 hours
   1. Basics of DVD Studio Pro software
   2. Review of other DVD authoring software applications
   3. Creating and linking tracks and menus
   4. Organizing ancillary materials
   5. Multi-angle video
   6. Multiple audio tracks
   7. Previewing, pre-testing and formative evaluation

F. Audio for DVD   12 hours
   1. Dolby Pro Logic surround systems

        2. Mid/side stereo
        3. 5.1 surround sound
        4. THX surround sound
        5. Home theatre components
        6. Audio-only DVD's

G. Formatting and Building the DVD   12 hours
        1. Multiplexing or "muxing"
        2. Testing the VIDEO_TS folder
        3. Replication and duplication
        4. Burning a one-off DVD
        5. Output to digital linear tape
        6. Other output options

V.   Methods of Presentation

The following instructional methodologies may be used in the course:
1. classroom lecture and demonstration;
2. analysis of professional examples;
3. peer analysis of student projects;
4. individual instructor-to-student assistance;
5. self-paced individual work.

VI.   Assignments and Methods of Evaluation

1. Video production projects.
2. Instructor evaluation.
3. Production critiques by instructor and peers.
4. A final exam.

VII.   Textbook

Sitter, Martin. DVD Studio Pro 3 for Mac OS X: Visual QuickPro Guide.
Berkeley: Peachpit Press, 2004.
12th Grade Textbook Reading Level. ISBN 0-321-26789-3.