

Introduction to Digital Media

Course Number
MEDIA 161 00 002

Semester
Fall, 2006

Classroom
HN 432

Class Times
Mondays, 3:10PM - 6:00PM

This syllabus is subject to changes and may be amended over the course of the semester. You will be notified of all changes in class and on the class website. All readings are linked from the website:
<http://fmfaculty.hunter.cuny.edu/~behark/courses/06F161002/>

PART I – MANIPULATING DATA

SECTION 1 – *Digital Imaging*

Skills and Tools: Adobe Photoshop

Week 1 – Digital Imaging 1 – Importing	
In Class – Introductions	What to expect this semester <ul style="list-style-type: none"> • Introductions • Review of Syllabus, Requirements, and Assignments
In Class – Skills and Tools	Importing images: <ul style="list-style-type: none"> • Scanners • Digital Cameras • Found Images • Creating Image from Scratch • Review of Photoshop Tools
In Class – Concepts	Technical Concepts: <ul style="list-style-type: none"> • Document Set-up • File Format • Resolution • Color Mode • Raster vs. Vector Graphics • Bit Color Theoretical Concepts: <ul style="list-style-type: none"> • Issues of intent • Sampling vs. Generative • Copyright
Homework	<ul style="list-style-type: none"> • Pick a Photoshop guide and purchase it. Bring it next week. • Pick a topic for your projects. • Bring in raw images to work with in class next week – one of each kind.
Reading	<ul style="list-style-type: none"> • Manovich: "Principles of New Media" from <i>The Language of New Media</i>, (Cambridge: MIT Press, 2001).

Week 2 – Digital Imaging 2 – Processing	
In Class – Concepts	Discussion: <ul style="list-style-type: none"> • Manipulating Data
In Class – Skills and Tools	Processing images: <ul style="list-style-type: none"> • Layers • Filters • Layer Effects • Masks and Quick Mask • Text and Typography • Actions

In Class – Concepts	Algorithmic Art Lecture
In Class – Work Time	<ul style="list-style-type: none"> Experiment with applying processing techniques to the images you collected.
Homework	<ul style="list-style-type: none"> Continue to work on processing with your images. Your images should have evolved significantly by next week and should be ready to export. At least one must incorporate text. Special Typography Homework. Select fonts to caption images.
Reading	<ul style="list-style-type: none"> Spiekermann: "Looking at Type" from <i>Stop Stealing Sheep & Find Out How Type Works</i>, (Adobe Press, 2002).

Week 3 – Digital Imaging 3 – Exporting

In Class – Concepts	Digital Imagery Art Lecture
In Class – Skills and Tools	Exporting images: <ul style="list-style-type: none"> File Formats Exhibition Formats – Thinking installationally. What is the end use? Screen, Print, Projection, Scale, Multiples, etc. Typography – Using Text as Image Critique Strategies
In Class – Work Time	<ul style="list-style-type: none"> Prepare images for presentation and critique
Homework – Assignment 1 Due!	Prepare three completed digital images for critique: one portrait, one landscape, and one event. Your images should use layers and masking. At least one must incorporate text. Carefully consider and be prepared to discuss your choices regarding exhibition format.
Reading	<ul style="list-style-type: none"> Paul: "Digital Technologies as a Tool" from <i>Digital Art</i>, (London: Thames and Hudson, 2003).

Week 4 – Digital Imaging Critique

In Class – Critique	All work must be completed and installed by the beginning of class. Coordinate installation with your classmates. Be on time!
In Class – Discussion	Review key theories and concepts of Digital Imaging and how they apply to the work we have made.
Homework	Bring to class: <ul style="list-style-type: none"> Headphones Microphone CD
Reading	<ul style="list-style-type: none"> Lucier: "Every Room Has Its Melody"

SECTION 2 – Sound

Skills and Tools: Sourceforge Audacity

Week 5 – Sound 1 – Importing

In Class – Concepts	Technical Concepts: <ul style="list-style-type: none"> Basic Principles of Sound Key Terminology File Formats Theoretical Concepts: <ul style="list-style-type: none"> Digital vs. Analog Sampling
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In Class – Skills and Tools	Importing sound: <ul style="list-style-type: none"> • CD • Microphone • Found Sound • Data as Sound • Generated Sounds
Homework	Select a landscape / portrait / event as the subject for your sound project. Digitize sounds to represent your subject and bring these sounds to work with next class.
Reading	<ul style="list-style-type: none"> • Russolo: "The Art of Noises" (1913). Available online: http://www.ubu.com/papers/russolo.html.

Week 6 – Sound 2 – Processing	
In Class – Concepts	Sound Art Lecture
In Class – Skills and Tools	Processing sound: <ul style="list-style-type: none"> • Using Tracks • Review of Audacity Tools: Time Shift / Selecting / Envelope • Stereo vs. Mono Editing Basics: <ul style="list-style-type: none"> • Cut / Copy / Paste • Duplicate / Split • Submixing with Quick Mix • Effects
In Class – Work Time	<ul style="list-style-type: none"> • Experiment with processing techniques to edit your sounds.
Homework	Continue to work on processing with your sounds. * Bring to class: at least 1 blank CD. *
Reading	<ul style="list-style-type: none"> • TBD

Week 7 – Sound 3 – Exporting	
In Class – Skills and Tools	Exporting sound: <ul style="list-style-type: none"> • File Formats • Exporting for CDs using Tracks • Burning CDs • Exhibition Formats – Considering Audience. • What is the end format? Performance, CD, Web, etc.
In Class – Work Time	<ul style="list-style-type: none"> • Prepare sound project for presentation and critique
Homework – Assignment 2 Due!	Create one finished piece of sound art using digital processes. Your piece should either be a portrait, a landscape, or an event and should represent one of the subjects of your digital imaging assignment. Carefully consider and be prepared to discuss your choices regarding exhibition format.
Reading	<ul style="list-style-type: none"> • Howard-Spink: "Grey Tuesday: online cultural activism and the mash-up of music and politics." Available online: http://www.firstmonday.org/issues/issue9_10/howard/.

Week 8 – Sound Critique	
In Class – Critique	All work must be completed and installed by the beginning of class. Coordinate installation with your classmates. Be on time!
In Class – Discussion	Review key theories and concepts of Sound and how they apply to the work we have made.
Reading	<ul style="list-style-type: none"> • Lunenfeld: "Hypertext: The Alphanumeric Phoenix" from <i>Snap to Grid</i>, (Cambridge: MIT Press, 2000) • Lialina: "My Boyfriend Came Back From the War" and remixes from "The Last Real Net Art Museum." Available online: http://myboyfriendcamebackfromth.ewar.ru/

PART II – STRUCTURING DATA

SECTION 3 – Associative Media

Skills and Tools: HTML

Week 9 – Associative Media 1 – Syntax	
In Class – Skills and Tools	Hello World!: <ul style="list-style-type: none"> • Basic HTML tags • Good Grammar – HTML and XHTML
In Class – Concepts	Technical Concepts: <ul style="list-style-type: none"> • File Structure • Naming Conventions Theoretical Concepts: <ul style="list-style-type: none"> • Document Object Model • Documents, Classes, Tags, Attributes, Names
Homework	Where you have previously used sound and image to represent your portrait / landscape / event, now you will begin to use creative writing as a mode of representation. Continuing to work with the subject of your sound project, begin writing two pages of text. Experiment with the writing techniques and concepts from the homework readings. If you have writers' block, consider trying one or more of the following: <ul style="list-style-type: none"> • Listen to your sound piece and describe what you hear. • Look at your digital image for 2 minutes. Turn the image over so you can't see it. Close your eyes and try to remember the image for 1 minutes. Open your eyes and do a free write (stream of consciousness) describing the image as best you can remember it.
Reading	<ul style="list-style-type: none"> • Burroughs: "The Cut-Up Method of Byron Gysin." Available online: http://www.ubu.com/papers/burroughs_gysin.html • Matthews & Brotchie, eds.: "Introduction," "N+7," "Definitional Literature," "Eye-Rhyme," "Lipogram," "Univocalism," "Larding," "Slenderizing," and "Poetic Redundancy," from <i>The Oulipo Compendium</i>. Available online: http://www.oulipocompendium.com (Follow "Introduction" and "Excerpts" links from main page.)

Week 10 – Associative Media 2 – Relations	
In Class – Skills and Tools	Relations: Links <ul style="list-style-type: none"> • Absolute and relative • Targets Relations: Tags, Attributes, and Styles <ul style="list-style-type: none"> • Intro to CSS Images and text <ul style="list-style-type: none"> • Saving images for Web
In Class – Work Time	<ul style="list-style-type: none"> • Use links to establish relationships in time between sections of your text. • Use CSS to establish visual relationships between elements. • If desired, incorporate images into your hypertext. How do image and text relate visually? How do they relate temporally?

Homework	<ul style="list-style-type: none"> Continue working on establishing visual and temporal relationships within your hypertext. Special HTML Homework: Fixing a broken website.
Reading	<ul style="list-style-type: none"> Borges: "The Garden of Forking Paths." Available online: http://www.cybergain.com/remediality/borges.pdf. Bush: "As We May Think." Available online: http://www.theatlantic.com/doc/194507/bush.

Week 11 – Associative Media 3 – Distribution	
In Class – Concepts	<ul style="list-style-type: none"> History of the Internet Lecture Net Art Slide Show
In Class – Skills and Tools	Distributing your work: <ul style="list-style-type: none"> Protocols: HTTP and FTP Exhibition Formats – Considering Audience. What is the end format? Performance, CD, Web, , etc.
In Class – Concepts	Theoretical Concepts <ul style="list-style-type: none"> Interventions
In Class – Work Time	<ul style="list-style-type: none"> Prepare your Associative Media project for presentation and critique
Homework – Assignment 3 Due!	Create a website by establishing <i>associative</i> relationships between digital data. Your Associative Media project should be an online representation of your subject (a portrait, landscape, or event) through coded text. Carefully consider and be prepared to discuss your choices regarding how you connect different parts of your work, and how your work connects to the Internet as its context.
Reading	<ul style="list-style-type: none"> Nelson, "Computer Lib / Dream Machines" (excerpt). Available online: http://mrl.nyu.edu/~noah/nmr/book_samples/nmr-21-nelson.pdf Brecht, "The Radio as an Apparatus of Communication." Available online: http://telematic.walkerart.org/telereal/bit_brecht.html

Week 12 – Associative Media Critique	
In Class – Critique	All work must be completed, online, and installed by the beginning of class. Coordinate installation with your classmates. Be on time and remember to test your connections!
In Class – Discussion	Review key theories and concepts of Associative Media and how they apply to the work we have made.
Homework	There is no reading this week! Instead, return to your sound project. For next week, come to class with at least four "segments" from your original project. You can achieve this by simply dividing the project at logical breaks, or by sampling and remixing it into four shorter compositions.

SECTION 4 – Time-based Media
Skills and Tools: Macromedia Flash

Week 13 – Time-based Media 1 – Syntax	
In Class – Skills and Tools	Data-types – Building blocks in Flash: <ul style="list-style-type: none"> • Drawing in Flash • Tools overview • Importing Audio • Importing Graphics • Trace bitmap function Timeline: <ul style="list-style-type: none"> • Frames and Keyframes • Frame-by-frame Animation Data-types – Symbols: <ul style="list-style-type: none"> • Graphics / Movie Clips / Buttons
In Class – Concepts	Technical Concepts: <ul style="list-style-type: none"> • Animation-based and vector-based program • The Timeline and the Stage Theoretical Concepts: <ul style="list-style-type: none"> • How does Time-based Media combine sound and image?
In Class – Screenings	Selected animations using sound as a structure for images.
Homework	Using the drawing tools in Flash and frame-by-frame animation, create animated imagery to accompany each of your sounds. <i>Use your sounds to guide your images – think about movement and rhythm.</i> Your animations should be saved in your Library as Movie Clip Symbols. They should play as simple loops. Use the Library to manage your files: <ul style="list-style-type: none"> • Save each frame of your animation as a graphic symbol. • For each animation, put all your graphic symbols and your sound file in a folder within the Library. • Save each complete animation in your Library as a Movie Clip Symbol.
Reading	<ul style="list-style-type: none"> • McCloud, "Time Frames" from <i>The New Media Reader</i>. (Cambridge: MIT Press, 2003).

Week 14 – Time-based Media 2 – Relations	
In Class – Skills and Tools	Establishing Relationships in Time: Tweens <ul style="list-style-type: none"> • Shape tweens and motion tweens • Syncing sound and image Establishing Relationships by Name: Buttons & Basic ActionScript <ul style="list-style-type: none"> • Anatomy of a Button • Events • goto commands for buttons
In Class – Concepts	Technical Concepts: <ul style="list-style-type: none"> • Object-oriented programming • Absolute and relative referencing • The Library • Reusing elements • Instances and names Symbols – Properties and Behaviors: <ul style="list-style-type: none"> • Graphics / Movie Clips / Buttons • Movie Clip timeline vs. main movie timeline

In Class – Work Time	<ul style="list-style-type: none"> Bring your frame-by-frame animations into the main movie timeline. Use tweens to animate them on the main stage.
Homework	<ul style="list-style-type: none"> Continue to work on your animations by using tweening and frame-by-frame animation in your main movie. By next week you should have all of your Movie Clips flowing together in the main timeline. <i>Pay close attention to your transitions!</i> Make a simple Button symbol that you can reuse throughout your Flash movie.
Reading	Manovich, "Generation Flash." Available online: http://www.manovich.net/DOCS/generation_flash.doc .

Week 15 – Time-based Media 3 – Distribution

In Class – Skills and Tools	Exporting animations for the web: <ul style="list-style-type: none"> Exhibition Formats – Considering Interactivity Buttons – using multiple instances. Publish Settings
In Class – Work Time	Use multiple instances of your buttons to create a navigation interface for jumping between sections of your animation. <i>Again, pay attention to transitions. When do users have the opportunity to intervene in your animation? When is that option not available?</i>
Homework – Assignment 4 (Final Project) Due!	Complete your web animation. The criteria for your final project are: <ul style="list-style-type: none"> Your sound composition should serve as the main structural element guiding your moving images. You should use keyframes and tweening, to create movement. You should use buttons to allow users to manipulate the temporal structure of your animation. Your project should be published as a swf, should be embedded in an HTML page, and should be uploaded to a website. Carefully consider and be prepared to discuss your choices regarding how you employ <i>interactivity</i> and <i>time</i> in your project.
Reading	<ul style="list-style-type: none"> Rokeby, "Transforming Mirrors." Available online: http://homepage.mac.com/davidrokeby/mirrors.html.

Week 16 – Time-based Media Final Critique

In Class – Critique	All work must be completed, online, and installed by the beginning of class. Coordinate installation with your classmates. Be on time and remember to test your connections!
In Class – Discussion	Review key theories and concepts of Time-based Media and how they apply to the work we have made.

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MEDIA 161 00 002, Fall 2006

I, _____, have read the syllabus and agree to abide by it to complete the class. I agree to stay informed about updates to this syllabus by checking the class website: <http://fmfaculty.hunter.cuny.edu/~behark/courses/06F161002/>.

Signed

Date