

The Art of Digital DJing – Mixing Music, Video, and Technology

Description Technology allows DJs to take their art form to new heights, but most performers are afraid or unaware of using it. Once unheard of, mixing 3-4 songs at once, and incorporating live instrumentation is now easily in reach. The cutting edge digital DJ, not only mixes music, but incorporates video, lights and innovative interfaces as well. This course is designed for DJs and musicians who wish to add an exciting dimension to their live performance. The goal of this course is to dispel the myth that DJing with technology is complicated, and to encourage Laptop DJs to transform their performances into engaging and stimulating experiences for their audience. Participants will learn advanced techniques of DJing, including live mixing of multiple tracks of music, selecting and manipulating video, and creating their own instruments. Enrollment is limited to 15 students. Five 3-hour sessions.

Audience All Digital Artists; amateur and club DJs; songwriters and musicians; anyone wanting to add a unique visual element to their live performances.

Objectives By the end of the course you should be able to:

1. Perform live using video and music
2. Use technology to enhance live media performance
3. Understand the fundamentals of Digital DJing without a mouse or keyboard
4. Learn how to customize and create new instruments and controllers. E.g. using a Nintendo Wii controller to mix music
5. Become familiar with Ableton Live and other software for DJing music and video

Areas of Application Create original art using music and video; create memorable experiences with expert mixing and mash-up techniques; Separate yourself from conventional performers;

Course Materials and Administration

What to Expect each Week

Lecture Notes

Lecture notes provide a concise summary of concepts covered each week, including:

- Summary of Techniques presented in lesson
- Software hints and tips to remember
- Performance Tips
- Popular Examples

In-Class Demonstrations

The instructor will demonstrate each Video DJing techniques to bring the theory to life.

Hands-On Involvement

Each student will have the opportunity to try important DJing techniques and receive feedback and troubleshooting help.

Lab Activities and Assignments

Each week students will be encouraged to practice music and video DJing on their own laptops and to demonstrate them for the class. Students will also be challenged to create their own instruments.

Networking and Learning from Other DJs

A powerful opportunity to network with local DJs, share tips and tricks.

Grading and Assessment

Participation—50%

This is a hands-on course, and students are encouraged to ask questions and perform learned techniques as much as possible.

Final Project: 10-Minute Live Performance – 50%

In the final session, students will perform a 10-minute piece. Students have creative freedom to incorporate their favorite music, video and any personalized instruments.

Course Outline

Session	Subject and Topics	Activities
Session 1	<p>Digital Music Mixing</p> <p>DJing Basics</p> <ul style="list-style-type: none"> • Tempo & Key • Choosing Tracks that go together • Mixing and Timing • Styles of DJing (Scratching, Club, Mash-ups) <p>Technology is Your Friend</p> <ul style="list-style-type: none"> • Dispelling the notion that DJing with technology is difficult • Freeing Yourself from the mechanics of DJing • New ideas for live, creative expression <p>Introduction to the tools of Digital DJing</p> <ul style="list-style-type: none"> • Serato Scratch Live – Using analog turntables with digital media • Native Instruments Traktor – Multisource music mixing and effects • Ableton Live – Loop-based performance <p>Ableton Live In-depth</p> <ul style="list-style-type: none"> • Mixing Techniques: Grid Mode & Mixer • Rethinking music selection for digital DJing [moving away from the two-song/two-turntable mindset] • Mixing songs and loops into the same composition 	<ul style="list-style-type: none"> • Listen to clips from various DJ mixes to illustrate theory • Demonstration of different digital DJ software • Import loops and songs into Live • How to line up beat markers • Hands-on mixing workshop using an example project provided by instructors <p>Assignment 1:</p> <p>Create a 5-minute, themed music mix using loops and songs of the student's choice</p>

<p>Session 2</p>	<p>MIDI & Controllers</p> <p>MIDI Basic</p> <ul style="list-style-type: none"> • History of MIDI • Basics of MIDI Controller Theory • Routing MIDI from software to hardware <p>Introduction to Standard Controllers</p> <ul style="list-style-type: none"> • Mixers & Keyboards, how and why are they used frequently • Discrete Control Vs. Continuous Control • Standard Controls: Triggers, Toggles, Faders & Knobs • Assigning hardware controls to parameters in Live <p>Alternative Controllers</p> <ul style="list-style-type: none"> • Learn about different controllers and how to use them (Joysticks, grid pads, iPhone, 2D touch surfaces, etc) • History and examples of controllers used in performance (Laurie Anderson, Golan Levin, Bob Moog, etc) <p>Using Music & Effects</p> <ul style="list-style-type: none"> • Filter, Flange, & Echo • Explore different audio effects and parameters • Using controllers to express yourself through effects 	<ul style="list-style-type: none"> • Volunteers will be asked to play highlights from their mixes/assignments • Demonstration of mixing using Mixer and Keyboards • Hands-on session: students will assign mixer controls to their assignment project • Demonstration of G-Love 5000 hand controller • Watch videos of artists interacting with music in live performances • Students will add audio effects to their projects, and experiment with different controllers (joysticks, etc) supplied by instructors <p>Assignment 2:</p> <p>Record a live session of previous week's assignment, adding physical expression using controllers and effects</p>
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<p>Session 3</p>	<p>Live Video</p> <p>Intro to Live Visuals</p> <ul style="list-style-type: none"> • A who's who of VJs today • Different styles of visuals (Video vs. Visualizers; Effects) <p>Video Tools</p> <ul style="list-style-type: none"> • A rundown of different VJ software and how they differ (Quartz Composer, Just Add Music, Nodul8, etc) • Introduction to tool of choice (Quartz Composer or Just Add Music) • Triggering video and music together using MIDI <p>Basic Video Effects</p> <ul style="list-style-type: none"> • Color Adjustment • Position & Orientation • Replication <p>Advanced Video Effects</p> <ul style="list-style-type: none"> • Generators & Visualizers • Particle Effects • Etc <p>Synchronizing Video & Music</p> <ul style="list-style-type: none"> • Video effects that correspond to audio effects • Tying controllers to both music and video to trigger clips in sync 	<ul style="list-style-type: none"> • Volunteers will be asked to perform live using a controller and music from their assignments • Demonstration of different VJ tools • Triggering video alongside music using VJ tool of choice (Quartz Composer or Just Add Music) • Hands-on Session: Experimenting with video effects and controller synchronization <p>Assignment 3: Adding video and effects to your assignment</p>
<p>Session 4</p>	<p>Putting it All Together – Synchronization Workshop</p> <p>The majority of this session will be dedicated to working and troubleshooting students performance projects.</p> <p>Instructors will be on hand to help the</p>	<p>Guest DJ performance and discussion of their unique style</p> <ul style="list-style-type: none"> • Volunteers will be asked to perform their projects throughout the session with class feedback and critiques

	<p>students prepare for the following week's performance</p> <p>Advanced Topics to be covered:</p> <ul style="list-style-type: none"> • Setting up your gear • Enhancing your stage presence • Synchronizing lighting to your mix • Allowing audience interaction to effect your mix 	<ul style="list-style-type: none"> • Examples of other live and interactive performances will also be shown • Practice, Practice, Practice
Session 5	<p>Live Performance</p> <p>The first two hours of the session will be spent getting students set up for their live performance. Students will then take turns performing live in front of an audience (venue is TBD). The night will be promoted publicly, and students will be given priority invitations to hand out to friends. A guest DJ will headline the night. Students will also be encouraged to perform additional material following the guest DJ. Instructor will also perform.</p>	

Software & Hardware Requirements

Recommended Software & Hardware

Ableton Live 7 LE

Free Demos Available for download that will get you through this course [NB: You will not be able to save your work in the free version] <http://www.ableton.com/live-le>

The boxed version of Ableton Live 7 LE requires approximately 4 GB of hard drive space.

Mac [Required]

Any G4 or faster (Intel Mac recommended)
 512 MB RAM (1 GB recommended)
 Mac OS X 10.3.9 (10.4 or later recommended)
 Quicktime 6.5 or higher recommended

Additional Recommendations

Head Phones; Multi-Channel Sound Card