

Intro to Digital Recording Syllabus

(5 weeks)

Week 1

Popular software for Digital Audio Workstation

- Pro level
 - Pro Tools
 - Logic
 - Digital Performer
- Semi pro and Consumer
 - Garageband
 - Cakewalk
 - Cubase
- Other popular audio software
 - Reason
 - Ableton Live

Analog to Digital conversion

- Sample rate
- Bit depth

Digital formats and popular file types

- Wave
- MP3
- AAC
- Sound Designer II
- AFF
- CAF
- Apple Lossless

Digital recording hardware setup

- Audio interface
 - Connections
 - Firewire
 - USB
 - Thunderbolt
 - Inputs/outputs
 - XLR
 - Line
 - SPDIF
 - MIDI
 - Light pipe
- Computer
- External hard drive

Popular interface brands

- Motu
- Avid
- Apogee
- MAudio
- Focusrite
- Presonus

Latency in digital recording

- Buffer size
- Hard drive speed
- CPU overload

Week 2

Common DAW interface features:

Workspaces

- Mix window
- Edit window
 - Timeline
 - Bars/beats
 - Min/sec
 - Audio regions
- Transport
 - Play
 - Stop
 - Record/punch in
 - Fast forward/rewind
 - Pre/post roll

Digital signal flow

- Creating channel strips
 - Master Fader
 - Aux
 - MIDI
- Signal routing
 - Bussing
 - Inserts/plugins
 - Modifying routing parameters
 - Outboard gear
 - Auto input monitoring

Recording and editing audio in the DAW

- Regions

- Audio pool
- Editing features
 - Crop
 - Split
 - Moving
 - Duplicate
 - Looping
 - Comping
 - Elastic time
 - Quantizing

Week 3

What is MIDI?

- Channel
- Note on/off
- Note velocity
- Aftertouch
- Continuous Controller Messages
 - Pedal
 - Mod wheel
 - Pitch bend

Recording and editing MIDI in the DAW

- MIDI channel
- Note on/off
- Note velocity
- CC Messages
- Quantizing
- Panic: all notes off

Week 4

Automation

- Channel strip
 - Fader
 - Mute
 - Pan
 - Aux sends
- Plugin parameters

Grouping channel strips

- Audio region
- channel strip

Exporting a mix (bouncing to disk)

- File types
- CPU overload

Week 5

On location assistance recording using a portable DAW at a Madison Music Foundry music event.

- Setup mics, cables, stands, and equipment
- Run DAW
- Tear down