

INTRODUCTION TO MUSIC RECORDING

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This course is designed for students with an understanding and appreciation of music and demonstrated desire to learn the techniques of recording. Classes will approach the subject in three different ways:

Lectures - discussing the fundamental techniques and science of the recording process

Analysis - listening to popular recordings that utilize the techniques discussed during class and discovering aesthetic qualities beyond the technology that make the recording sound the way it does.

Hands on practical experience - working with the equipment, applying the techniques discussed during lectures and creating projects of our own.

CONTENT OBJECTIVES

- learn fundamental recording studio practices, terminology and etiquette
- learn basic song forms, structures and production techniques
- conduct extensive aural analysis of popular works
- introduce a variety of commonly used instruments and techniques utilized in popular recordings
- study ProTools software platform and other studio equipment to develop a strong practical knowledge of signal flow, gain structure and proper implementation
- study basic acoustic principles and microphone placement
- use MIDI to illustrate composition and arrangement possibilities.

SKILL OBJECTIVES

- to demonstrate fluency with commonly used terms and techniques of audio recording
- to conduct oneself in a manner conducive to a positive and creative recording environment
- to recognize commonly used studio equipment (microphones, signal processors, etc.), understand their function(s), and use them appropriately
- to show good working knowledge of the basics of ProTools recording software
- to identify basic song forms & commonly used musical textures through analysis
- to creatively record, program and manipulate basic projects within ProTools
- to understand the fundamentals of acoustics and their affect on a recording environment

METHODS OF EVALUATION

- Tests and quizzes based on demonstration of practical tasks
- Written analysis assignments and presentations
- Assessment of projects and assignments
- Comprehensive practical exams
- Participation in classroom discussions

CLASSROOM EXPECTATIONS

- Students must pledge and abide by the honor code of Episcopal High School
- Students should plan on taking detailed notes during every lecture
- Laptops are not allowed in class time
- Computers in the lab are **NEVER** to be used for Email or Internet usage without permission. Students found doing so will be asked to leave the class immediately. Any unauthorized use or modification of the computer will be considered a violation of the honor code and reported to the honor committee.

REQUIRED MATERIALS

- White, Ira Audio Made Easy (4th Edition). Hal Leonard Corporation, 2007
- Emerick, Geoff Here, There and Everywhere: My Life Recording the music of the Beatles. Gotham Publishing, 2006
- Shure Corporation – Live Sound & Recording Handbooks (provided)
- a dedicated 3 ring binder with notebook paper and room for handouts and pamphlets

ADDITIONAL MATERIALS

- ProTools, Version 8.0.3. Digidesign, Inc. 2009
- Reason 4, Propellerhead Software, 2007
- Acid Music Pro 3.0 Sony, 2004
- Babiuk, Andy, Beatles Gear: All the Fab Fours Instruments from Stage to Studio (3rd Edition). Backbeat Books, 2009
- Huber, David M. and Runstein, Robert E. Modern Recording Techniques (7th Edition). SAMS Publishing, 2004
- Katz, Bob, Mastering Audio: The Art and the Science (2nd edition). Focal Press, 2007
- Lewisohn, Mark, The Complete Beatles Recording Sessions: The Official Story of the Abbey Road Years 1962-1970. EMI Records, 2006
- Massey, Howard. Behind The Glass Backbeat Books, 2000
- Moylan, William. The Art of Recording: Understanding and Crafting the Mix. Focal Press, 2002
- Valenzuela, Jose Chilitos. The Complete ProTools Shortcuts Backbeat Books, 2004
- Multiple Authors, The Beatles – Complete Scores
- Numerous recordings of popular artists

	Class Topics	Assignments
Week 1	Course Syllabus Review	
	Gnarls Barkley "Crazy" Analysis	Read: When You Need Permission to Sample
	Introduction to Transducers + Signal Flow	
	Facility tour and cable coiling	Read "Audio Made Easy" Chapters 1-3
Week 2	AC/DC "Back in Black" Analysis	Review "Back in Black" links
	Introduction to Microphones	Read Shure microphone pamphlet
	Connector Identification	Complete campus connector ID worksheet
		Read "Audio Made Easy" Chapter 5
Week 3	Balanced audio connections. Review for quiz	Study for Quiz
	QUIZ 1.1 - Microphones, Connectors, Signal Flow	
	Go over quizzes	
	A Tribe Called Quest Analysis	Analysis TBA. Graph onto Analysis sheet
Week 4	Review Analysis Homework	Review links on sampling
	Macike Onyx Console & Signal Flow	Read something about live sound
	Examine live sound spaces on campus	
	Heiruspecs "5ves" Analysis	Study for Quiz
Week 5	Live demo using Onyx console	
	QUIZ 1.2 - ONYX Console	Read something about multitrack recording
	Discuss multitrack recording	
	Atmosphere analysis	Read "Audio Made Easy" Chapter 6-8

Week 6	Analysis TBA Follow along in ProTools	
	Introduction to ProTools - Software	
	Introduction to ProTools - Interfaces	
	Basic Protools editing demo	Protools homework
Week 7	Recording into protools	
	Introduction to EQ & EQ in ProTools	Read "Audio Made Easy" Chapter 9
	Graphic Equalization	Download & Practice w/ SFT
	Analyze TBA	
Week 8	Review for mid-term	
Week 9	Analysis TBA	Read Bob Katz chapter on dynamics
	Dynamics Processing	
	Using analog dynamics processors	
	Using dynamics in ProTools	Read article on basic acoustics
Week 10	Basic acoustics	
	Recording in different reverberant spaces on campus	Read article on effects processing
	Creating reverb effects with analog signal processors (plate, spring, chamber)	
	Creating reverb effects with digital signal processors in ProTools	
Week 11	Delays (Tape slap, analog, digital)	
	Importing and exporting audio with ProTools	
	Analyze Josh Joplin spoken word	Assign spoken word project
	Create spoken word piece in class	Work on spoken word project
Week 12	Work on spoken word projects	
	Work on spoken word projects	
	Review spoken word projects	
	Review for final exam	
Week 13	Analog recording technologies (R2R, records)	Handout portable tape recorders. Assign sample gathering for musique concrete
	Analog recording & editing demo	
	Analyze some Beatles recordings	Read article on the "History of MIDI"
Week 14	Introduction to MIDI & Synthesis	Assign Cars "Drive" Analysis
	Common keyboard instruments	
	Using Xpand! and sequencing midi in ProTools	
Week 15	Software synths & Reason sequencing	
	Using Reason with ProTools	Assign MIDI + Audio project
	Work on MIDI + Audio project	
Week 16	Rough draft of MIDI + Audio project due	
	Tour of Bias Recording Studios	
	Work on MIDI + Audio project	
	Review MIDI + Audio projects	