

Music 261 Advanced Digital Media
College of the Holy Cross Fall 2009

Class Times: Tuesday, Thursday 11:00-12:15 am
Classroom: Scalia Lab (Tues.) and Brooks 339 Music Studio (Thurs.)
Professor: Dr. Toby Mountain Office: Smith Hall 437
Phone: 3357 Email: tmountai@holycross.edu
Office Hours: Tuesday, Thursday 1:00-3:30 pm or by appointment

Welcome to “Music 261 – Advanced Digital Media”

In the last hundred years there have been extraordinary changes in the world of music. Technology has provided musicians with amazing ways to create and innovate. We will track this evolution and see how it has culminated with today’s digital technology. This will provide you with a fresh context to pursue your own creative work as composers and performers.

Reading

The following textbook is required:

Audio in Media / Stanley R. Alten, Thompson Wadsworth
8th Edition, 2008, ISBN 13:978-0-495-09568-2

We will also read selections from other books (see bibliography), which will be available as pdfs on Moogle):

Understanding Audio, Daniel M, Thompson, Berklee Press, 2005
Music and Technology in the Twentieth Century, edited by Hans-Joachim Braun
Capturing Sound: How Technology Has Changed Music, Mark Katz
Appetite for Self Destruction, Steve Knopper, Free Press 2009

Listening

There will be weekly listening assignments, available on the Brooks Music Studio Computer. You are welcome to make your own CDs of the files in the Music 261 listening folder. To maintain quality I would discourage making mp3 or aac files.

Tutorials

There will be assignments or tutorials due every second Thursday.

Quizzes

There will be four announced quizzes based on the reading.

Midterm / Final Exam

There will be a midterm and a final project – details to follow.

Grading

Final grades will be calculated as follows: Final Project 40%, Midterm Project 20%, Quizzes 20%, Weekly Tutorials 20%.

Class Schedule and Assignments

Week 1 First Class - Introduction

Thurs. Sept. 3

Week 2 Audio Fundamentals

Tues. Sept. 8

Reading: Audio in Media, Chapter 1: Sound and Hearing, p. 1-6, 11-17

Listening/09-08-09: Three Recordings (1917, 1945, 1973) of Hungarian March from “The Damnation of Faust” by Hector Berlioz. Read the listening notes.

Thurs. Sept. 10

Reading: Audio in Media, Chapter 2: Acoustics and Psychoacoustics, p. 19-24

Listening/09-10-09: Various solo instruments: violin & wind. Read the listening notes.

Week 3 Transducers

Tues. Sept. 15

Reading: Audio in Media, Chapter 3: Loudspeakers and Monitoring

Listening/09-15-09: Various solo instruments: winds and strings. Read the listening notes.

Thurs. Sept. 17

Reading: Audio in Media, Chapter 4: Microphones

Listening: Solo instrument recordings: piano & guitar

Tutorial: create a solo stereo recording using SoundBlade and ProTools 8

Week 4 The History of Analog Recording, The Phonograph

Tues. Sept. 22 **QUIZ** on Transducers

Reading: <http://en.wikipedia.org/wiki/Phonograph>

Listening: CD of Pre WW II Jazz: “Dippermouth Blues” and others

Thurs. Sept. 24

Reading: Katz, Chapter Two, “Making America More Musical”

Listening: CD of Pre WW II Jazz

Week 5 The History of Analog Recording, Magnetic Tape

Tues. Sept. 29

Reading: magnetic tape.pdf, Thompson Chapter 13, Analog Magnetic Recording

Listening: Tape pieces: Varèse: Poem Electronique (1958)

Stockhausen: Gesang der Jünglinge (Song of the Youths)

Thurs. Oct. 1

Reading: Holmes, Chapter 5, Musique Concrete and the Ancient Art of Tape Composition

Listening: Tape pieces: Fantasy (1979) Arthur Kreiger, Revolution 9, The Beatles (1968)

Tutorial: create a short musique concrete piece from MIDI or real sounds

Week 6 The History of Analog Recording, Pop Music of the 60s & 70s

Tues. Oct. 6 Class will be in Music Studio

Reading: Excerpts from Mark Lewison and Geoff Emerick, the recording of “Strawberry Fields” (pdfs in Moodle)

Listening: Beatles CD “Strawberry Fields” Take 1, Take 7, Take 11, final mix

Thurs. Oct. 8 **QUIZ** on Analog Recording – Class will be in Scalia Lab

Reading:

Listening:

Week 7 Midterm Week

Tues. Oct. 13

NO CLASS

Thurs. Oct. 15

MIDTERM DUE

Week 8 Digital Audio Basics

Tues. Oct. 20

Reading: Audio in Media, Chapter 6: Digital Recording, p. 119-24

Reading: Thompson, Chapter 14, Digital Audio, p. 286-298

Listening: early digital audio CD

Thurs. Oct. 22

Reading: Audio in Media, Chapter 6: Digital Recording, p. 124-40

Reading: Thompson, Chapter 14, Digital Audio, p. 298-307

Listening: early digital audio CD

Week 9 The Computer & Digital Signal Processing

Tues. Oct. 27

Reading: Holmes, Chapter 10 “The Origins of Computer Music” p. 211-21,
‘digital synthesis.pdf’ (article in Moodle)

Listening: in listening folder for Oct. 21

Thurs. Oct. 29

Reading: Audio in Media, Chapter 8: Signal Processors
‘bay area audio.pdf’ (article in Moodle)

Listening: in listening folder for Oct. 21

Tutorial: Create a series of recorded events with signal processing

Week 10 Digital Audio Editing & Sampling

Tues. Nov. 3

Reading: Audio in Media, Chapter 18, Editing

Listening: Listening folder 11-04-08

Thurs. Nov. 5

Reading: Katz, Chapter Six, The Turntable as Weapon

Listening: Listening folder 11-04-08

Week 11 Music Production

Tues. Nov. 10 **QUIZ** on Digital Audio

Reading: Audio in Media, Chapter 15, Music Production, pp. 309-28

Listening: Listening folder 11-04-08

Thurs. Nov. 12

Reading: Audio in Media, Chapter 15, Music Production, pp. 328-351

Listening: Listening folder 11-04-08

Tutorial: create some new recorded sounds and use either Apple Logic or ProTools to alter them. Combine them with software instruments.

Week 12 Working in the Modern Studio

Tues. Nov. 17

Reading: Audio in Media,

Listening: Listening folder 11-18-08 - Soundtrack Music

Thurs. Nov. 19

Reading: assigned .pdfs in Moodle

Listening: Listening folder 11-18-08 - Soundtrack Music / bring in your own samples

Week 13 Digital Audio Mixing & Surround Sound

Tues. Nov. 24

Reading: Audio in Media, Chapter 19, Mixing and Rerecording

Listening: bring in your own samples

Tutorial: create a classic rock mix using ProTools

Thurs. Nov. 26

NO CLASS – Thanksgiving Break

Week 14 Digital Audio Mastering

Tues. Dec. 1

Reading: assigned .pdfs in Moodle

Listening: music of the 90s

Thurs. Dec. 3 **QUIZ** on Mixing and Mastering

Reading: assigned .pdfs in Moodle

Listening: bring in a favorite audio recording that utilizes technology

Week 15 REVIEW

Tues. Dec. 8

STUDY PERIOD BEGINS Wed. Dec. 9

Tues. Dec. 15 **Final Project due**