

Electronic Studio (MUS4203)

Fall 2018 Syllabus

Dr. Ben Johansen
McCrary Music Building, 233
B_Johansen (email)

[Meeting Time/Place]

1:25-2:15pm Mon/Wed in Alinea ([Marrs McLean Science Building Room 330](#)).

[Required Attendance Outside of Scheduled Class Time]

None.

[Course Objectives]

By the end of this course, you will be able to:

- List various forms of electroacoustic music along with historical examples.
- Perform basic electroacoustic music analysis.
- Identify and describe foundational/basic digital signal processing (DSP) tools.
- Creatively manipulate recorded sounds to fit your compositional objectives using DSP tools.
- Develop code to use in live electroacoustic music performance.
- Create an original electronic music complete with edited score(s) and parts (if applicable).

[Course Materials]

Resources (patches, readings, etc.) can be accessed here:

<https://baylor.box.com/v/mus4203> (available only to students in this course)

Library Listening Reserves = <https://baylor.box.com/s/631s4tyynt5xy3m71mf7o1rbfaad1kd9>

[Grading]

Engage with technology.

Take risks with technology.

Search and be curious.

50.75 points - Class Attendance (1.75 points per class; 29 classes = 50.75 points)

50.00 points - Projects (5 points each; 10 projects = 50 points)

00.00 points - Listening and Reading Assignments (required for successful Project execution)

100.75 points TOTAL

A = 90-100.75

B = 83-86

C+ = 77-79

C- = 70-72

B+ = 87-89

B- = 80-82

C = 73-76

F = 0-69

[Schedule]

Mon Aug20 Lesson/Lecture 1
Wed Aug22 Project 1 Share + discuss Listening Assignment #01
 Mon Aug27 Lesson/Lecture 2 + discuss Reading Assignment #01
 Wed Aug29 Tech Support / Progress Check (attendance required)
~~Mon Sep03~~ (no class) Labor Day
Wed Sep05 Project 2 Share + discuss Reading Assignment #02
 Mon Sep10 Lesson/Lecture 3
 Wed Sep12 Tech Support / Progress Check (attendance required)
Mon Sep17 Project 3 Share + discuss Listening Assignment #02
 Wed Sep19 Lesson/Lecture 4
 Mon Sep24 Tech Support / Progress Check (attendance required)
Wed Sep26 Project 4 Share + discuss Reading Assignment #03
 Mon Oct01 Lesson/Lecture 5
 Wed Oct03 Tech Support / Progress Check (attendance required)
Mon Oct08 Project 5 Share + discuss Reading Assignment #04
 Wed Oct10 Max
 Mon Oct15 Max
 Wed Oct17 Max
 Mon Oct22 work on Project 6 on your own
 Wed Oct24 work on Project 6 on your own
Mon Oct29 Project 6 Share + discuss Reading Assignment #05
 Wed Oct31 Lesson/Lecture 7
 Mon Nov05 Tech Support / Progress Check (attendance required)
Wed Nov07 Project 7 Share + discuss Listening Assignment #04
 Mon Nov12 Lesson/Lecture 8
 Wed Nov14 Tech Support / Progress Check (attendance required)
Mon Nov19 Project 8 Share + discuss Listening Assignment #05
~~Wed Nov21~~ (no class) Thanksgiving
 Mon Nov26 Lesson/Lecture 9
 Wed Nov28 Tech Support / Progress Check (attendance required)
Mon Dec03 Project 9 Share

[Attendance]

The following is straight from the School of Music Undergraduate Handbook (I made the last sentence red):

School of Music policy requires that to earn credit in a course a student must be officially enrolled by the end of the second full week of the semester and attend at least 75% of all class meetings. Faculty members may establish additional attendance requirements as outlined in course syllabi. Any student who is not present for at least 75% of the scheduled class sessions for any course will automatically receive a grade of "F" in the course. **Any University-related activity necessitating an absence from class will count as an absence when determining whether a student has attended the required 75% of class meetings.**

[Academic Success]

We as faculty members have high academic expectations of you and believe every student who has been admitted to Baylor can be successful. I am a vigilant professor and will notice if you are struggling in my course. If your academic performance in this class is substandard, I will submit an Academic Progress Report to the Success Center during the sixth week of the semester. I will work to help you get the help you need to learn more fully, and I can assist you in finding the resources you need beyond my course. Familiarize yourself with the culture of success we have at Baylor by stopping by the Paul L. Foster Success Center in Sid Richardson or by going to: <http://www.baylor.edu/successcenter/>. Even if you don't need help, you can get involved by tutoring other students in the future or by telling a hall mate how and where to get help.

[Academic Integrity]

Plagiarism or any form of cheating involves a breach of student-teacher trust. This means that any work submitted under your name is expected to be your own, neither composed by anyone else as a whole or in part, nor handed over to another person for complete or partial revision. Be sure to document all ideas that are not your own. Instances of plagiarism or any other act of academic dishonesty will be reported to the Honor Council and may result in failure of the course. Not understanding plagiarism is not an excuse. As a Baylor student, I expect you to be intimately familiar with the Honor Code at: <http://www.baylor.edu/honorcode/>

[Students Needing Accommodations]

Any student who needs academic accommodations related to a documented disability should inform me immediately at the beginning of the semester. You are required to obtain appropriate documentation and information regarding accommodations from the Office of Access and Learning Accommodation (OALA). Contact Information: (254) 710-3605 - Paul L. Foster Success Center, 1st floor on the East Wing of Sid Richardson.

[Baylor University Title IX]

Sexual and Gender-Based Harassment and Interpersonal Violence Policy

Baylor University does not discriminate on the basis of sex or gender in any of its education or employment programs and activities, and it does not tolerate discrimination or harassment on the basis of sex or gender. This policy prohibits sexual and gender-based harassment, sexual assault, sexual exploitation, stalking, intimate partner violence, and retaliation (collectively referred to as prohibited conduct). For more information on how to report or to learn more about our policy and process, please visit www.baylor.edu/titleix. You may also contact the Title IX Office directly by phone, (254) 710-8454, or email, TitleIX_Coordinator@baylor.edu.

The Title IX office understands the sensitive nature of these situations and can provide information about available on- and off-campus resources, such as counseling and psychological services, medical treatment, academic support, university housing, and other forms of assistance that may be available. Staff members at the office can also explain your rights and procedural options if you contact the Title IX Office. You will not be required to share your experience.

If you or someone you know feels unsafe or may be in imminent danger, please call the Baylor Police Department (254-710-2222) or Waco Police Department (9-1-1) immediately.

[Military Student Advisory]

Veterans and active duty military personnel are welcomed and encouraged to communicate, in advance if possible, any special circumstances (e.g., upcoming deployment, drill requirements, disability accommodations). You are also encouraged to visit the VETS Program Office with any questions at (254) 710-7264.

Project #01

- demonstrate you can record into the computer using MIO Console, LIO-8, and Logic
- record an amazing sound outside of Alinea and share it with the class
- listen to a piece on <http://ezproxy.baylor.edu/login?url=https://electrotheque.com/>
 - share the piece in class and use the following table ([from this paper by Leon W. Crouch III](#)) to help describe what you hear using musical terms you already know. Read the program notes if the piece has them.

TABLE 1: Fundamental Parameters^{vi}

DOMAIN	PARAMETER	CONTINUUM
Time	Temporal Progression	Continuous <-----> Disjunct
	Rhythm	Pulsed <-----> Non-pulsed
Texture	Vertical Density	Thick <-----> Thin
	Horizontal Density	Busy <-----> Sparse
Amplitude	Dynamics	Loud <-----> Soft
	Attack and Release	Sharp <-----> Gradual
Frequency	Pitch	Pitched <-----> Non-pitched
	Range (and Tessitura)	Narrow <-----> Wide
Location ^{vii}	Distance	Close <-----> Far
	Direction	Horizontal -180° <-----> 180° Vertical -180° <-----> 180°

Reading Assignment #01 (not graded, but discussed and vital to your education)

- [Composing Electronic Music by Curtis Roads \(New York: Oxford University Press, 2015\)](#)
 - Chapter 1 - The Electronic Medium [listen to all examples]
 - Chapter 2 - Aesthetic Foundations [listen to all examples]

Reading Assignment #02 (not graded, but discussed and vital to your education)

- [Composing Electronic Music by Curtis Roads \(New York: Oxford University Press, 2015\)](#)
 - Chapter 3 - The Nature of Sound (more of a review from middle school ... skim)
 - Chapter 4 - Creating Sound Materials [listen to all examples]
 - Chapter 5 - Sound Transformation [listen to all examples]

Project #02

“... the principle of *economy of selection*, which means choosing one or a few aesthetically optimal or salient choices from a vast desert of unremarkable possibilities.”

- Curtis Roads (pg. 14 of [Composing Electronic Music](#))

- Record a sound this week (in Alinea or anywhere else using a Zoom)
- Create a 1min piece using only manipulated copies of that one sound

OPTIONAL: keep a journal of what processes you apply to create new sounds from your original recording so you can learn what you like and what you don't like.

Project #03: acoustic + electric

Create a “tape piece” with score = a traditional instrument + fixed media + score

- 1+ minute(s) long
- use any techniques and any software/hardware you want
- you must perform it during class Sept.17
- create a rough draft score = everything must be communicated on the score, but it doesn't have to be in “publishable” form

Project #04:

Create an interactive live electronics + traditional instrument work ... and perform it!

- 2+ minute(s) long
- use any techniques and any software/hardware you want
- you *must* record and playback your traditional instrument (with or without effects) at some point during the performance
- you *must* have at least one prerecorded sample to playback during the performance
- you *must* put a live effect on the traditional instrument (mic + plugin) during the performance
- you *must* perform it during class Sept.26
- create a rough draft score = everything must be communicated on the score, but it doesn't have to be in “publishable” form

Project #05:**Create sounds in Max you cannot create in any DAW**

- You must export the sound (so you must have an object that records audio in the patch)
- Oct 8:
 - first = play us your sound(s) in a DAW
 - second = give us a presentation on how you did it in Max
- Required Objects:
 - sfrecord~
 - play~
 - buffer~
 - dac~
 - gain~ and/or *~
 - [toggle] ... keyboard shortcut "t"
 - [button] ... keyboard shortcut "b"
 - [message] ... keyboard shortcut "m"
 - line or line~
 - random
 - metro
 - number ... keyboard shortcut "i" for integer (whole numbers)
 - flonum ... keyboard shortcut "f" for float (number with decimal)
- optional fun objects to explore (not required):
 - tapin~ and tapout~
 - record~
 - send ... (or just "s")
 - receive ... (or just "r")
 - number~
 - groove~
 - drunk
 - counter
- [Arguments and Special Characters in Max](#) (\$ and #)

Project #06: Due Oct. 29

Code, Compose, and Perform (Oct.29) a 5min work for:

- **found object(s)**
- **hardware controller, microphone, audio interface, speakers, computer**
- **Max patch**

The Max patch must include:

- pre-created/recorded **samples** that are triggered ([inspiration](#))
- use of a controller (MIDI or other)
- effects (MSP objects or plugins) put upon the live input [adc~] of the found object(s)
- record and playback of the found object(s)

You must also have a score

- the score can be just understood by you
- this does not have to be a piece anyone else may ever be able to perform
- there may be a great deal of improvisation within a predetermined plan

Suggested Game-Plan:

- draft out what you'd like to do on paper ... for example:
 1. start recording mic 1
 2. perform on found object 1 in mic 1
 3. (while playing found object) trigger some audio samples with keyboard
 4. stop recording mic 1 and immediately playback 2 times (fade out during 2nd playback)
 5. etc. ...
- begin patching just one part of your plan (copying stuff from help files as a starting point) ... for example:
 1. create recording part of patch
 2. create playback part that includes fade out
 3. etc. ...

Helpful resources:

- **Max Documentation** (Help > Reference ...)
 - **MSP** > Tutorials = MSP Sampling Tutorials
 - **MSP** > Topics = Sound Processing Techniques
 - **MAX** > Guides = Mappings
 - **MAX** > Tutorials = Max Basic Tutorial 14: Encapsulation
 - **MAX** > Tutorials = Max Basic Tutorial 15: Abstractions
 - **MSP** > Guides = Finding Objects in MSP

Nov. 7 - delay

<https://www.youtube.com/watch?v=PHzZvSWjqlc>

Last Project:

Hypothetical Scenario:

Someone wants to commission an electroacoustic project from someone in this class for \$650.

You have one week to create a 5-15min presentation including a working example of the project to convince the patron to choose your project to commission. The project can be fixed or interactive - for concert or installation.