

## MUTH 4310.001 (Letter Grade) - Fall 2018

### Introduction to Electro-Acoustic Music

OFAC 2117 (EMS) T & TR 11:00 AM- 12:20 PM

Dr. Robert Frank - Office #2018 - phone (214) 768-2142

email: robfrank@smu.edu - <http://faculty.smu.edu/robfrank/>

#### Readings on Canvas from:

Frank, Robert. "Beyond the Common Practice"

Hosken: "An Introduction to Music Technology" - 2nd Ed.

Schrader, Barry. "Introduction to Electro-Acoustic Music"

#### Recordings on iTunes on the studio computer:

Pierre Schaeffer - *Etude aux Chemin de Fer*

Karlheinz Stockhausen - *Gesang der Junglinge*

Vladimir Ussachevsky - *Wireless Fantasy*

Toro Takemitsu - *Water Music*

Steve Reich - *Come Out*

Phil Winsor - *Il Passagio Spaziale*

Michael Thompson - *Klank, I*

Paul Lansky - *just\_more\_idle\_chatter*

Elainie Lillios - *Arturo*

Robert Frank - *Zymurgy*

Robert Frank - *Just Joan*

Robert Frank - *Binary Blizzard*

Mark Applebaum - *Pre-Composition*

**Other materials:** Notebook and pens/pencils, Flash/thumb USB storage devices for backup (64 GB or larger USB 3.0 recommended – audio files are very large) and any additional special materials as per project requirements. Laptop computers are helpful and recommended, but the studio computer is the sole storage location required for all assignments.

#### Prerequisites:

MUTH 2130, 2230 or permission of instructor. Basic Understanding of the Macintosh Operating System.

#### Rationale:

Today's composer, like those of the past, has before them every available tool to create and share music. Just as Mozart and Beethoven embraced and advanced the then-new "piano-forte", new chromatic "keyed" instruments, and other technical advances of their time, the composers of the 20th century embraced new, emerging audio-producing technology. Now, as computers and digital media continue to shape our society and art, new and innovative means of creating and sharing music of our own time is similarly shaped. This course will provide you with an introduction to the history, culture, music, tools and techniques of electro-acoustic music so that you have the means and freedom of thought to learn, understand, create with, and express yourself through, this medium of our time.

This course meets the upper division MUTH requirement for music majors, requirement for Composition Majors, and the following University Curriculum Outcomes:

#### Course Learning Outcomes:

##### University Curriculum Student Learner Outcomes:

##### Creativity and Aesthetics – Level one:

1. Students will be able to identify methods, techniques, or languages of a particular art form, creative endeavor or craft(s) and explain how those inform the creation, performance or analysis of creative work. (Level 1)

2. Students will be able to demonstrate an understanding of concepts fundamental to the creative impulse through analysis, performance, or creation. (Level 1)

#### Additional Course Learning Outcomes:

Students enrolled in this course will, through readings, listening assignments, in-class lectures and discussions, and assigned projects accomplish the following learning outcomes:

1. Learn about the history and development of E-A music, the tools used to create it, and how those advances have shaped today's software and hardware, providing a background to learn and understand both current and future releases.

2. Acquire elementary technical expertise in the setup and operation of the basic tools of both fixed and interactive computer music, including:
  - a. digital and analog recording, editing, playback, and sound manipulation hardware and software
  - b. MIDI hardware and software
  - c. types of real-time software
3. Study, analyze, and discuss specified works from the literature, and learn to aurally identify the elements, timbres, and basic techniques employed in them.
4. Discuss the role and level to which the culture, values, and background of the composer influenced studied works and how they might be interpreted.
5. Apply the above to creative E-A projects that explore the above goals

#### **Course Requirements, Expectations, and Policies:**

Students will be expected to have an incoming working knowledge of computer operation, file management, and backup procedures for data files. Those without a thorough knowledge of the Macintosh operating system will be expected to self-remedy and learn this within the first week or two. Although file storage is allocated on the lab computer, on which most if not all work will be done, students are required and responsible for making *frequent* and *functional* backups of data and projects. It is not a matter of *if* you will experience data loss, but *when*.

Attendance will be taken and will factor into your grade (see grading policies below). Excused absences will be granted at the sole discretion of the instructor, who will make every reasonable accommodation. Leaving early before a break during a regularly scheduled class time or exam is never excused. Students are responsible for all materials covered and all assignments made during all absences, excused or unexcused, and are responsible for taking the initiative and making the arrangements to do so on their own accord. It is hoped that all of you will help each other out, and that you will all feel free to contact me and set up appointments as needed. I will make every effort to provide you with all the help reasonably and feasibly possible. There is a teaching assistant (Christian Jesse) assigned to this course, who you should contact if unable to contact me.

Students will be required to sign up for, and use, a minimum of 2 hours of studio time per week (more is recommended). It is understood by all that some people may require more studio time than others to master the material, based on the widely varying backgrounds of each student, so additional lab time may be needed, and students should plan on this if applicable. Even if you have software on your laptop, you should still spend your minimum studio times in the studio - becoming familiar with studio operations, etc. is a part of the course requirements. Also, the audio in the studio *will* be different from your home system, which could cause grade reductions for audio quality/mix, etc. Students agree to all studio policies as posted on the door. Violation of studio policies may lead to actions as severe as being dropped from the course with no appeal and/or further SMU action, depending on the severity. All settings and equipment must be returned to "studio normal" as defined on the studio document at the end of each session, and students are responsible for keeping the studio clean, sanitary, and orderly. If any equipment or software is not working or missing, please report it *immediately* to the instructor. We will make every effort to ensure that everything is in working order, but understanding the nature of technology, everyone accepts that if something does go wrong, no liability or recourse is guaranteed by SMU or the instructor.

Readings will not always follow the order of reading materials, nor will they cover every single topic. As assignments are made I will cover in class what parts are required and what information is purely supplemental (so bring your notebook to class each and every class period). Although some technical material is essential, much of the math is beyond the scope of this course and will not be required.

All reading/listening/written/project assignments are to be completed at least one hour before the beginning of class on the day they are due, and all students should take notes and be prepared to discuss in detail the materials assigned. Although some information may not be discussed in class (there just isn't time to cover everything), any materials assigned may be included on written tests. Similarly, any material covered in class may also be tested. For projects, it is understood that sometimes confusion or technical issues may not allow you to complete a project, but evidence of starting and exerting a sincere effort will be strongly considered and counted in grading at the discretion of the instructor. Late assignments (not due to technical issues) will receive a 10% deduction if completed by the following class period and will not be accepted after one week following the due date. Although you are encouraged to help each other out in learning the materials, all work is expected to be completed by the student and all SMU honor code policies apply.

ALL assignments are graded solely upon the files in your student folder on the studio workstation. If you do any work on your personal computer, it is your sole responsibility to ensure that they open and fully work/sound on the studio Mac. With audio software, this often requires specific file copy/move techniques and some settings may NOT transfer over, so any work on your personal system is at your own risk. All files must be transferred to the studio Mac PRIOR to class - we will not stop the class to wait for you to copy files, change setups, etc. *If your assignment is not ready to play in-class or at it's due time due to lack of preparation or technical issues due to file transfer, your assignment will not be played and appropriate points will be deducted.*

**Attendance:**

Excused absences require a legitimate excuse and notification by leaving a message on my voice mail or email no later than 30 minutes before class, or turning in a legitimate written excuse from your appropriate medical, legal, clerical, or university authority. On days when presenting a project, at least 3 hours notice is required. Emergency and transportation issues will be compassionately accommodated on an as needed basis at the discretion of the instructor. Each unexcused absence will reduce your final grade by 5%. More than four unexcused absences in a row will lead to being immediately dropped from the course without appeal or recourse. If there are any extenuating circumstances or special needs that I should be aware of, please feel free to see me at any time.

**Grading:**

Every attempt will be made to be as clear as possible as to the requirements of each assignment as it is made, but students should ask for clarification if there is any question. Students may at any time meet with the instructor to find out their current grading status, and a written notification of your current grade will be confidentially provided to you with the return of your Mid-Term Exam and prior to the last day to drop a course.

Final Grade calculation:

Assignments (oral, written, and/or demonstrations) .....	20%
Exploratory/Lab Project(s).....	20%
Quizzes (2) and all POP Quizzes .....	5%
Mid Term Exam (Oct. 6th).....	15%
Final Exam (Saturday, Dec. 10: 11:30 AM -2:30 PM) .....	15%
Final Project .....	25%
(Attendance as above)	

Final Grade Scale:

A 93 – 100%	A- 90 - 92%	B+ 87 – 89%	B 84 – 86%	B- 80 – 83%	C+ 77 – 79%
C 74 – 76%	C - 70 – 73%	D+ 67 – 69%	D 64 – 66%	D - 60 – 63%	< 59% - fail

Because of the goal to gain expertise in applying the studied techniques and topics, all exploratory/lab projects will be graded on a "pass/fail" (full credit or none) based on effort, progress, and mastery as determined by the instructor. If a non-passing grade for a project is given, students will be given specific feedback on what elements were lacking and have one week to redo/revise the project to bring it up to a passing status and full credit will be given. Please work with the instructor in these cases to be sure you are clear about what needs to be done and how you can earn full credit and do not be discouraged if a project does require reworking: this is to be expected in a course of this nature and there is no penalty to your grade if you do successfully complete the work in the given time. Although creativity is encouraged and expected, grading will be based on accomplishing the technical requirements of the assignment (eg. - if you assigned to create 3 digital panning effects, but instead you come up with 4 really cool digital reverb effects, that is really nice... but it doesn't meet the requirements of the assignment.)

The Final Project will have specific grading rubrics distributed when the assignment is made. Students will be asked to give short (10-15 minute) oral presentations of the artistic goals of their project and the techniques used for in-class feedback while the projects are in-progress, sharing their ability to articulate their intent and to receive feedback that will be helpful to the final result. A short written essay (about 2 pages, double-spaced) of the artistic, cultural, and technical influences and application to the project is due along with the creative final project itself.

The attached course outline lists proposed topics and dates, but due to the unique nature of the backgrounds of students each offering, these are all subject to written or verbal change at any time as I will adapt to the learning speed and needs of the class as a whole. Also, I very much welcome ideas for topics from the class - beyond the core topics, I want this course to benefit each of you in your musical training.

SMU Policies:

**Disability Accommodations:** Students needing academic accommodations for a disability must first register with Disability Accommodations & Success Strategies (DASS). Students can call 214-768-1470 or visit <http://www.smu.edu/Provost/ALEC/DASS> to begin the process. Once registered, students should then schedule an appointment with the professor as early in the semester as possible, present a DASS Accommodation Letter, and make appropriate arrangements. Please note that accommodations are not retroactive and require advance notice to implement.

**Religious Observance:** Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence. ([See University Policy No. 1.9](#))

**Excused Absences for University Extracurricular Activities:** Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (See [2018-2019 University Undergraduate Catalogue](#))

## MUTH 4310 List of Topics

	<b>Tuesday</b>	<b>Thursday</b>
<b>August 21 &amp; 24</b>	Introduction & Syllabus. What this course is, and what it is not. Presentation and Discussion: <i>What is EA Music?</i> Assign: Reading: Schrader, pgs. 1-6	Presentation: 2. Sound Studio Overview. Reading: Schrader, Chapter 2 Lab Assignment: Orientation Worksheet (Listening Schaeffer: Etude aux chemin de fer
<b>Aug. 28 &amp; 30</b>	Presentations: 3a History and Background of E-A Music - Part I: Musique Concrète, Discussion: Early Tape music and <i>musique concrète</i> . Reading: Schrader, Chapters 5-7 (short chapters) Temporal Elements Web Site/podcast view & review Listening: Reich - <i>Come Out</i>	Presentation and Discussion: 3b Temporal Elements. 3c History II: Tape Music of the early European, US, and Japanese studios. Reading: Hosken: Chapter 4: Digital Audio Software: The DAW Listening: Toro Takemitsu – <i>Water Music</i> Karlheinz Stockhausen - <i>Gesang der Junglinge</i>
<b>Sept. 4 &amp; 6</b>	Discussion and Studio DAWs. Presentation: 3d: Technological and cultural Influences. ProTools: basic digital recording & editing. Assignment: Digital Audio Project	Presentation: 4 Fundamentals of Digital Audio Microphone types. Listening: Elainie Lillios - <i>Arturo</i> Continue Digital Audio Project
<b>11 &amp; 13</b>	In class discussion of Digital Audio Project (in progress) and presentation: 4b Hard Disc Recording. Assignment: Blog on Digital Audio Project	Finish Listening to Projects and Quiz 1: Terms, Early Tape Music and Techniques, Fundamentals of Digital Audio 2 Assignment: Hosken: Chapter 8-MIDI Hardware
<b>16 &amp; 18</b>	Introduction to MIDI Assignment: DP Tutorials	Assignment: Hosken: Chapter 9-MIDI Messages & DP Tutorials
<b>25 &amp; 27</b>	MIDI Hardware Assignment: Finale-> DP MIDI Discussion and Help: Digital Performer Assignment: DP Tutorials continued Listening: Frank: <i>Binary Blizzard</i>	Man to MIDI: Data and Protocol Carlos: Switched on Bach Assign Project 2: short MIDI transcription
<b>Oct. 2 &amp; 4</b>	MIDI Controllers/Continuous Data Review for Mid Term	<b>Mid-Term Exam</b>
<b>9 &amp; 11</b>	(FALL BREAK- NO CLASS)	Hand back Mid-Term exam and discussion. Digital Performer DAW Work
<b>16 &amp; 18</b>	Presentation: Reverb Reverb Assignment add to projects	Aux Tracks and Spatialization, EQ, reverb, and delay Real-time Effects Assignment: Real-time Effects Mini-project
<b>23 &amp; 25</b>	In-class sharing of MIDI Projects. Other real-time audio effects	TBA
<b>Oct. 30 &amp; Nov. 1</b>	Discussion: Real-time versus Fixed E-A Music Listening: Robert Frank – <i>Alone with my thoughts...</i>	Real-time Demonstration Microphone use and placements.
<b>6 &amp; 8</b>	Speaker setups and cables. Recording and performance Practices in EA Music Reading: Frank, Part V: Contemporary Use of Technology Assignment: Final Project Proposal	General Discussion on Final Projects and Practical Guidelines for E-A Performance and recording. Assignment: Final Project
<b>13 &amp; 15</b>	Quiz 2 and Real-time music Listening: Mark Applebaum - <i>Pre-Composition</i>	Quiz 2 hand back Real-time tools
<b>20 &amp; 22</b>	Graduate Presentation (in-progress critique) and Real-time music Assignment: Final Project	23 - THANKSGIVING BREAK - NO CLASS
<b>27 &amp; 29</b>	Final Projects Playing/presentations. Grad presentations	Final Projects Playing/presentations. Review for Final Exam.

**Final Exam: Saturday, Dec. 8: 11:30 AM - 2:30 PM - Comprehensive Written Exam**  
**Note: Midterm and Final exam date/times are fixed and cannot be made up or changed.**