



蘇州大學
Soochow University

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MUS 230 Electroacoustic Music Composition I

Winter 2021

Course Information

Course Credits: 4

Contact Hours: 58 hours

Class Time: 8:30 - 10:20

Instructor: TBA

Course Format: Online

Course Description

Electroacoustic music is an essential genre of music, popular for its unique style based on digital technology. This course is aimed at providing students with in-depth introduction to the basic tools of electroacoustic music composition, including sound, sound waves, musical sound, sound perception and acoustics, digitization and their applications. It's a preliminary course for further composition of electroacoustic music. Moreover, the course also illustrates the history and evolution of Electroacoustic music by playing related music and involving students into intensive discussion and analysis.

Prerequisite (s)

None.



Learning Objectives

Upon completion of this course, students will be able to:

1. Demonstrate proficiency of appreciating and analyzing electroacoustic music;
2. Develop facility with core techniques frequently used in electroacoustic music composition;
3. Create electronic-based music compositions;
4. Use MIDI editors and score editors to enhance performances;
5. Prepare for a career as a composer and communication the professional context.

Methodology

Methodology	Hours	Hours of work During class	Hours of work After class
Online Video	50	88 hours (60%)	
Online Forum Discussion	8		
Assessment	30		
Personal study	30		68 hours (40%)
Tasks	22		
Practical teaching preparation	10		
Bibliographic search	6		
Total	156	88	68



Textbook (s)

1. *Digital Sound & Music* by Jennifer Burg and Jason Romney, Franklin, Beedle & Associates Inc, 2016.
2. *Sonic Art: An Introduction to Electroacoustic Music Composition* by Moore, Adrian, Taylor and Francis; Routledge, 2016.

Tasks and Evaluation

Assignments	20% (5% for each)
Essays	20% (10% for each)
Midterm	25%
Final exam	35%

Students are required to attend online classes on the scheduled time. Missing classes without permission will lead to decrease in overall grade.

- Missing less than two classes: no penalty.
- Missing more than two classes: 7% will be taken off from the overall grade.

Online forum discussion is required. Students are required to post at least one question and answer at least one question on the forum weekly.

Online Tutorials are mandatory. Students will read and discuss academic articles provided. Students will also discuss the case studies for the week's lectures. Each Tutorial will be 1 hour.

All exams will be held online and the time of each exam will be limited to 1 hour. Exams must also be taken at the scheduled time. There will be no make-up exams.



Rating System:

1. Assessment

ASSESSMENT ITEM	PERCENT OF FINAL GRADE
Assignments	20% (5% for each)
Essays	20% (10% for each)
Midterm	25%
Final exam	35%

2. Grading Scale

A+ 96-100	A 90-95	A- 85-89
B+ 82-84	B 78-81	B- 75-77
C+ 71-74	C 66-70	C- 62-65
D 60-61	F < 60	

Course Content

Week	Lecture	Topics	Dues	%
1	1	What is Sound?		
	2	A Brief History of Digital Sound		
	3	Basic Terminology		
	4	Online Tutorial 1		
2	5	Composition and Recording		
	6	Work Environment		
	7	Sound Waves		
	8	Online Tutorial 2	Assignment 1	5
3	9	Sound Waves, Sine Waves, and Harmonic Motion		
	10	Digitizing Sound Waves		
	11	Sound Analysis		



	12	Online Tutorial 3		
4	13	Ear Testing and Training		
	14	Science, Mathematics, and Algorithms		
	15	Modeling Sound with Software		
	16	Online Tutorial 4	Assignment 2	5
5	17		Midterm Test	25
	18	Musical Sound		
	19	Tones and Notes		
	20	Online Tutorial 5	Essay 1	10
6	21	Musical Composition		
	22	Applications of Musical Sound		
	23	The Mathematics of Music		
	24	Online Tutorial 6	Assignment 3	5
7	25	Equal Tempered vs. Just Tempered Intervals		
	26	Sound Perception		
	27	Acoustics		
	28	Online Tutorial 7		
8	29	Acoustic Considerations for Live Performances		
	30	Acoustical Considerations for the Recording Studio		
	31	Deriving Power and Voltage Changes in Decibels		
	32	Online Tutorial 8	Assignment 4	5
9	33	The Mathematics of Delays, Comb Filtering, and Room Modes		
	34	Digitization		
	35	Audio Data Streams and Transmission Protocols		
	36	Online Tutorial 9		
10	37	Digital Audio File Types	Essay 2	10
	38	APPLICATIONS of Digitization		
	39	Final Exam Review		
	40		Final Exam	35



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University Regulations and Services

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.

Soochow University also highly respects students' accommodation for disabilities and religions. You might contact the Student Accessibility Office if you have any questions, concerns or if you would like to report any offensive behaviors.

Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.