COURSE NUMBER AND TITLE: MUSI 4456/6003 – Music Technology: History & Repertoire

CREDITS & HOURS: 3 credit hours: lecture 3 hours

REQUIRED PREREQUISITE: MUSI 2013 – Fundamentals of Musicianship IV

PURPOSE:

This non-chronological survey of music technology over the last century considers the close relationship between technological developments and artistic practice. Through the consideration of primary and secondary source readings and the careful analysis of musical works, we will use this rich history as a lens through which to better understand the current state of music technology and to chart future directions for technical research and creative practice.

To present a comprehensive view of music technology and practice in a single semester is a nearly insurmountable task, so this course makes no attempt to do so. We will instead consider small subsets of this history in greater depth, focusing not only on technological and aesthetic developments, but also on analytical listening, writing, and research skills, which are critical to your future work as musicians, music technologists, and scholars.

EXPECTATIONS:

You are expected to carefully prepare all listening and reading assignments before each class meeting and to come in with questions, thoughts, reactions, and ideas. When you listen to music for this course, you should focus solely on the music and listen to each piece multiple times.

Active participation is not only encouraged; it is a significant component of your course grade. You should participate in class discussions. You should also participate in online discussions via Piazza, sharing your questions, reactions, and thoughts about reading and listening assignments and responding to posts by other students. I monitor Piazza actively and use it to help focus our classroom discussions.

A midterm and final exam will test your comprehension of course material and your ability to apply your skills and knowledge to new material through a combination of listening excerpts and essay questions.

A research and analysis paper will challenge you to pursue independent research and to develop personal approaches to analyzing music and its context.

LEARNING OUTCOMES:

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

* Describe significant developments in music technology, aesthetics, and performance practices
* Explain the connections between technological developments and creative practices through the examples of specific musical works.
* Listen to music incorporating technology and, based on what they hear, identify key technological and stylistic features, describe the formal structure, and generate a notated representation of key features using either traditional or novel notational methods.
* Independently research a thematic topic in the history of music technology, evaluate the importance and credibility of primary and secondary sources, and summarize their literature review in a written report.

NOTE FOR GRADUATE STUDENTS:

Students enrolled in MUSI 6003 have additional requirements and expectations beyond those of students enrolled in the 4000-level course offering:

* Graduate students have additional primary source reading assignments, posted to T-square, that address select aesthetic and analytical problems in greater detail.
* Graduate students have additional questions on the midterm and final examinations that specifically address the techniques and issues raised in the additional reading.
* Graduate students are expected to produce a more extended research and analysis paper in the course that includes additional literature review and a cogent contextual argument for the importance of the chosen thematic area to the history and future of music technology.

GRADING BREAKDOWN:

The following evaluative tools will be utilized in measuring progress towards obtaining the class objectives:

Midterm exam 30%

Final exam 30%

Research Paper 30%

Participation 10%

TOTAL 100%

All assignments, quizzes, and tests will be graded by points. The final grade for the course will be determined by dividing the total points earned by the number of points possible for each of the categories listed in Method of Evaluation. These numbers will be converted into a grade according to the following scale: A=100-90%, B=89-80%, C=79-70%, D= 69-60%, F= 59% and below.

GRADING POLICIES:

Homework assignments are due *by the beginning of class* ON THE DUE DATE. A penalty of one letter grade per day will be applied to all late assignments. Documented illnesses and family emergencies are excepted, of course. Quizzes and exams cannot be made up unless you have a valid, documented excuse.

ACADEMIC INTEGRITY: Students must do their own work on assignments, projects, and tests unless collaboration is previously specified and approved by the instructor. Students caught cheating will receive zero credit for that assignment/quiz/test and may be subject to further sanctions through the Office of Student Integrity. Students are expected to abide by the Georgia Tech Honor Code and avoid any instances of academic misconduct, including but not limited to:

1. Possessing, using, or exchanging improperly acquired written or oral information in the preparation of a paper or for an exam.
2. Substitution of material that is wholly or substantially identical to that created or published by another individual or individuals.
3. False claims of performance or work that has been submitted by the student.

Please refer to the published Georgia Institute of Technology Academic Honor Code for further information:

* osi.gatech.edu/plugins/content/index.php?id=46

STATEMENT REGARDING STUDENTS WITH DISABILITIES:

In accordance with the Americans with Disabilities Act, students with bona fide disabilities will be afforded reasonable accommodation. The ADAPTS Office will certify a disability and advise faculty members of reasonable accommodations. The web site for a student requesting accommodation is:

* <http://www.adapts.gatech.edu/plugins/content/index.php?id=12>

MATERIALS:

There are two required texts for this course:

* Collins and d’Escriván. The Cambridge Companion to Electronic Music. Cambridge: Cambridge University Press.
* Cox and Warner. Audio Culture: Readings in Modern Music. New York: Continuum.

The easiest way to purchase these texts is at the Engineer's Bookstore (748 Marietta Street). You can also purchase them online at the bookseller of your choice. The Cambridge book is also available to purchase as an e-book.

Most of the listening assignments for this class will be on Spotify.

(You should add [the collaborative playlist for this course](http://open.spotify.com/user/xfreeman/playlist/4yjTTrMXbubdd2GIKy5MSp) to your Spotify account.)

In addition to these course materials, I will post numerous readings and a handful of listening items to this web site.

COURSE OUTLINE:

Aug 19: Course Introduction

Aug 21: Pre-Electronic Music

Aug 26: Early Studios: Musique Concrete

Aug 28: Early Studios: Elektronische Musik

Sept 2: Early Studios: RCA Mk II

Sept 4: Early Studios: Acoustic Ecology

Sept 9: visual analysis due & peer review

Sept 11: Live Electronic Music: New Instruments

Sept 16: Live Electronic Music: Sonic Arts Union

Sept 18: Live Electronic Music: Appropriated Instruments

Sept 23: Programming and Algorithms: Early History

Sept 25: written analysis due & peer review

Sept 30: Programming and Algorithms: Stochastics and Chance

Oct 2: Programming and Algorithms: Minimalism and Process Music

Oct 7: Midterm Exam

Oct 9: Interactivity

Oct 16: Audiovisual I: Philips Pavilion

Oct 21: Audiovisual II: Film and Video Games

Oct 23: bibliography, abstract, and outline due & peer review

Oct 28: Network Music

Oct 30: Listening Machines

Nov 4: Synthesis: Bell Labs

Nov 6: Synthesis: CCRMA

Nov 11: Synthesis: Granular

Nov 13: Synthesis: IRCAM

Nov 18: peer review of draft papers

Nov 20: Synthesis: Spectral

Nov 25: Synthesis: Vocal

Dec 2: final paper due & paper presentations

Dec 4: paper presentations

Dec 9: final exam