DATE: Spring 2016

COURSE NUMBER AND TITLE: MUSI 2013 Fundamentals of Musicianship IV

CREDITS & HOURS: 3 credit hours: lecture

Lecture: Tuesday and Thursday from 9:35 – 10:55 pm in Couch 104

PROCEDURES: Class will meet two times weekly from 8:05 – 9:25 AM for lecture and activities. Attendance for all lectures is *strongly urged*. The instructors are under no obligation to make up material presented in class unless the student can provide a reasonable and, if appropriate, documented excuse.

REQUIRED PREREQUISITE: MUSI 2012—Fundamentals of Musicianship III

INSTRUCTORS: (Office hours upon request)

* Prof. Benjamin Diden
  + Couch Music Building – 840 McMillan Street – Room 101 – (404) 894-8951 – [benjamin.diden@coa.gatech.edu](mailto:benjamin.diden@coa.gatech.edu)
  + Office Hours: M/W 1:00 – 2:00 pm.
* Dr. Timothy Hsu
  + Couch – Room 205A – (404) 894-8992 – [timothy.hsu@music.gatech.edu](mailto:timothy.hsu@music.gatech.edu)
  + Office Hours: Tuesdays 10:00 – 11:00 am
* Dr. Jerry Ulrich
  + Couch – Room 205A – (404) 894-8992 – [julrich@gatech.edu](mailto:timothy.hsu@music.gatech.edu)
  + Office Hours: Mondays 10:00 – 11:00 am

PURPOSE: The fourth and final semester of integrated sequence in music theory, aural training, music technology, and music literature. Focused upon music from 1900 to present, topics include Serialism, Neo-classicism, Impressionism, Expressionism, Pandiatonicism, Minimalism, electronic and computer and new emerging techniques in composition. Cutting-edge music technology fields will be introduced, such as robotic musicianship, music information retrieval, acoustics, and interactive music. The synthesis of previous sequential course content will lead to creation of original musical and technological artifacts. In addition, the student should possess the necessary tools to analyze musical scores and listen to music from any stylistic era and global genre. This course will prepare the student for upper division MUSI courses.

LEARNING OUTCOMES: Upon completion of the course, the student will be able to:

* Use 20th and 21st Century compositional techniques as the basis for composition
* Understand 20th and 21st Century musical forms, including formal analysis and content with respect to historical, social, and bibliographical context.
* Write a short, serial composition incorporating neoclassical forms
* Understand introductory music information retrieval analysis parameters, and its relationship with traditional music vocabulary
* Design and simulate simple music robotic systems
* Compose, rehearse, and record a performance of a creative music-technology artifact

METHOD OF INSTRUCTION:

1. Lecture
2. In-class demonstrations of serial, Neo-classic, Impressionistic, Expressionistic, Pandiatonic, Minimalist, electronic and computer compositional techniques
3. Aural dictation and sight-singing of 20th and 21st Century melodic and harmonic exercises
4. In-class discussion of modern musical forms and analysis of new music
5. Student-to student interactive learning and assignments of serial and neoclassic compositions
6. Program with MATLAB (or equivalent) to explore music information identifiers with existing music scores and recordings.
7. Cooperative teaching and learning investigating robotic musicianship and its interactivity with live performers.
8. Synthesis project encapsulating the Fundamentals of Musicianship sequence

METHOD OF EVALUATION:

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

Homework 30%

Quizzes 30%

Final Project 15%

Final 25%

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>

COURSE OUTLINE:

January 5: Syllabus, Review harmony and 19th century techniques, intro to 20th century

January 7: Impressionism and impressionist compositional techniques, robotic musicianship intro

January 12: Guest, Gil Weinberg

January 14: Pandiatonicsm, exotic, and synthetic scales, robot dynamic theory

January 19: Death of tonality, robot dynamic theory

January 21: Wagner, Stravinsky and Schoenberg, robotic lab

**January 26: Quizterm #1**

January 28: 12-tone technique, Schoenberg, MIR pitch detection

February 2: 12-tone technique, Schoenberg analysis, pitch detection

February 4: 12-tone analysis, Berg, MIR Beat detection

February 9: 12-tone, Webern analysis, Beat detection

**February 11: Quizterm #2**

February 16 Neoclassicism, Stravinsky, Prokofiev, Computer modeling

February 18: Guthman Musical Instrument competition

February 23: Neoclassicism, form analysis, computer modeling, Guthman follow-up

February 25: Minimalism, Reich, Glass, acoustic measurements

March 2: Minimalism, acoustic convolution

**March 4: Quizterm #3**

March 9: Seminar: Music from 1950-1975

March 11: Seminar: Music 1975-2000

March 16, 18: Spring Break

March 23: Seminar: Music since 2000

March 25: Seminar: Origins of Electronic and Synthesized Music

March 30: Seminar: Current music technology composers

**April 1: Quizterm #4**

April 6: Seminar: The evolution of vocal music to the present day

April 8: Seminar: The computer as an instrument

April 13: Seminar: Will robots replace musicians?

**April 15:** Seminar: The future of music technology **Projects DUE**

April 20: Project presentation

April 22: Project presentation

**April 27: 11:30-2:20: FINAL**