

MUS 313 Auditory Theory: Applied Tuning Systems

Steven M. Miller

3 credits

Tuesday & Thursday 2:00 – 3:15 PM

Location: Benildus 245 - Computer Lab

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Overview

This course serves as an introduction to the theory and practice of intonational systems. We will cover the scientific and mathematical aspects of intonation, real-world implementations, relationships between tuning systems and timbre, historical notions of ‘consonance’ and ‘dissonance’ in relation to intonation, and survey contemporary explorations of intonational systems. Through readings, listening, discussion, in-class presentations, and practical hands-on work, students will gain exposure to and insight into the various trends, attitudes, and concepts regarding intonation as a creative resource over a broad range of historical and contemporary musical practices. The semester’s work will culminate in creative compositional projects embodying the students’ experiences with intonation systems.

Texts and Readings

The following texts are required for this course. They are available from the campus bookstore or online. A copy of each will be placed on library reserve for the duration of the semester.

William A. Sethares, *Tuning, Timbre, Spectrum, Scale*, 2nd Ed., Springer Verlag 2004

David B. Doty, *The Just Intonation Primer*, 3rd Ed., Other Music, Inc. 2002

Harry Partch, *Genesis of a Music*, 2nd Ed., Da Capo 1974

Additional readings (see reading list) will be on reserve in the library individually and/or collected into binders.

Assignments & Projects

In addition to the readings and in-class discussion, each student will do 3 short in-class presentations, a mid-term paper, and a final composition project. The details of these follow.

Presentation 1 (before midterm) – Students will each choose, in the first 2 weeks of class, one course topic from weeks 1-8 on the semester schedule. A thoroughly prepared 10-minute introduction to the topic will be given in class on the applicable day. 2 primary discussion questions will be given. Students will turn in an outline of their presentation, bibliography, and the 2 discussion questions.

Midterm paper – An analytical 6-8 page paper on any 2 of the 3 primary course texts. Address specifically the following, in addition to your own specific interests: Compare/contrast the

approaches of the texts in terms of the assumptions, biases, pitfalls, strengths, opportunities, and resources that each embodies and presents.

Presentation 2 – A brief overview, analysis, and introduction to a specific tuning system employed by a composer in a specific composition. Address the relevant aspects of the tuning system, scale(s), notation, and instrument(s)/technology system employed to compose and/or perform the piece. 1 discussion question will be given. Students will turn in an outline of their presentation, analysis of the tuning system, and 1 discussion question.

Presentation 3 – A brief overview, analysis, and demonstration of a self-designed tuning system to be employed in the student’s final compositional project. Students will turn in an outline of their presentation, analysis of the tuning system.

Final Project – Each student will compose a piece of music employing a self-designed tuning system. The piece may be for an existing or self-built instrument, computer music system, or MIDI instruments capable of supporting their tuning system. Each piece will be played in class, either live or via recording. Students will turn in a recording, notational score or code printout, and a supporting 3-5 page analytical paper that discusses the piece, analysis of the tuning system, and the process of creation.

Grading

All students will be responsible for completing assigned readings and projects and fully participating in all class discussions. While acknowledging and allowing for special circumstances, students are expected to complete assignments in a timely manner. All assignments will be typed/printed. Assignments are due at the beginning of the class period on the due date. Late assignments will receive half-credit.

Presentation 1	15%
Presentation 2	15%
Presentation 3	15%
Midterm Paper	20%
<u>Final Project</u>	<u>35%</u>
Semester Grade	100%

Americans With Disabilities Act

The College of Santa Fe makes every effort to provide appropriate accommodations for students with documented disabilities in compliance with the Americans With Disabilities Act. Students may receive the accommodations if they contact their professor and register at the Center for Academic Excellence with the Disabilities Service Coordinator.

Note: All reasonable attempts will be made to adhere to the schedule & information in this syllabus. However, the instructor reserves the right to make accommodations & adaptations based on class progress, special opportunities, as well as occurrences outside the instructor’s control.